

City Hall
80 Broad Street
February 9, 2016
5:00 p.m.

CITY COUNCIL

A. Roll Call

B. Invocation – Councilmember Riegel

C. Pledge of Allegiance

D. Presentations and Recognitions

E. Public Hearings

F. Act on Public Hearing Matters

G. Approval of City Council Minutes:

1. January 26, 2016

H. Citizens Participation Period

I. Petitions and Communications:

1. Appointment of Councilmember Marvin Wagner to the Charleston Area Transportation Study (CHATS) Policy Committee

J. Council Committee Reports:

1. Committee on Ways and Means:

(Bids and Purchases

(Housing and Community Development: Mayor and City Council approval is requested to pursue the Department of Housing & Urban Development's Choice Neighborhood Grant in the amount of \$2,000,000. The target neighborhoods for this grant include the Eastside and East Central communities. The grant requires a match in the amount of five (5%) percent (or \$100,000) of the grant funds requested. The match would be derived from Community Development Block Grant dollars currently being invested in the communities targeted. Additionally, matching funds and in-kind support will be derived from partner organizations collaborating in the implementation of the grant and the Transformation Plan. Current partners include the Housing Authority of the City of Charleston, Charleston Promise Neighborhood and local businesses currently located in the community. Funding is needed to complete construction of the project. A City match in the amount of \$100,000 is required.

(Mayor's Office for Children, Youth & Families: Mayor and City Council approval is

requested to pursue funding from the U.S. Department of Justice, Office of Violence Against Women for the Enhanced Training and Services to End Abuse in Later Life Program. The maximum award is \$400,000 for three years. No City match is required.

(Office of Cultural Affairs: Approval to submit a grant application to Charleston County Accommodations Tax Committee in the amount of \$15,000 for the 2017 Piccolo Spoleto Festival. No City match is required.

(Office of Cultural Affairs: Approval to submit a grant application to Charleston County Accommodations Tax Committee in the amount of \$15,000 for the 2016 MOJA Arts Festival. No City match is required.

(Office of Cultural Affairs: Approval to submit a grant application to Charleston County Accommodations Tax Committee in the amount of \$10,000 for the 2016 Holiday Magic in Historic Charleston. No City match is required.

(Parks-Capital Projects: Approval of a PARD (Park and Recreation Development) Grant 2015-2016 application for parking lot improvements at the Bayview Soccer Complex. This grant will provide \$6,038.23 in funding, requiring a \$1,509.56 match (\$7,547.79 total). The proposed use of the projects funding would be to construct concrete curbing, accessible parking spaces, and sidewalk immediately adjacent to the existing restroom/concessions building. Funding would be available after acceptance approximately June 2016. There is no fiscal impact for this action. An approval of the grant application will only allow the Parks Department to submit the document to SCPRT. However, the fiscal impact will occur if the grant application is approved for award. A funding source will be determined at the time of the grant award.

(Parks-Capital Projects: Approval of a Construction Contract with R.L. Morrison & Sons, Inc. in the amount of \$195,634 for the removal and replacement of the existing wood wave attenuator boards on the fixed concrete pier at the Maritime Center. With the approval of the project budget, Staff is authorized to award and/or amend contracts less than \$40,000, to the extent contingency funds exist in the Council approved budget. The Construction Contract will obligate \$195,634 of the \$235,000 project budget. The funding source for this project is: 2015 Hospitality Funds (\$235,000).

(Clerk of Council: Approval of a Memorandum of Understanding between the City of Charleston and College of Charleston to archive the official papers of former Mayor Joseph P. Riley, Jr. The papers will remain the property of the City. The City is responsible for providing appropriate work space for the College's archival staff and insuring papers. The College will create a finding aid to help researchers and the public navigate the collection.

(Consider the following annexation:

-- Clements Ferry Road (TMS# 267-00-00-049) 1.01 acres, Cainhoy (District 1)

Give first reading to the following bills coming from Ways and Means:

An ordinance to provide for the annexation of property known as Clements Ferry Road (1.01 acre) (TMS# 267-00-00-049), Cainhoy, Berkeley County, to the City of Charleston, shown within the area annexed upon a map attached hereto and make it part of District 1.

K. Bills up for Third Reading:

1. *An ordinance to amend Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) by adding to Article 9 thereof a new Part 6 providing for a temporary moratorium until March 11, 2016, on the processing of development applications and issuing of permits for properties zoned Gathering Place (GP) (AS AMENDED).*

L. Bills up for Second Reading:

1. *An ordinance to amend the City of Charleston Century V 2010 Comprehensive Plan update, adopted by Charleston City Council on February 22, 2011, to incorporate the Rethink Folly Road Plan into said Century V Plan as hereinafter provided.*
2. *An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that 1065 Jenkins Road (West Ashley) (1.06 acres) (TMS #351-14-00-011 and 351-14-00-068) (Council District 7), be rezoned from Single-Family Residential (SR-1) classification to Business Park (BP) classification.*
3. *An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that 1847 Elsey Drive (West Ashley) (0.44 acre) (TMS #350-01-00-083) (Council District 7), annexed into the City of Charleston December 1, 2015 (#2015-182), be zoned Single-Family Residential (SR-1) classification.*
4. *An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that 1140 San Juan Avenue (Maryville-Ashleyville - West Ashley) (0.18 acre) (TMS #418-06-00-043) (Council District 3), annexed into the City of Charleston December 15, 2015 (#2015-193), be zoned Single-Family Residential (SR-1) classification.*
5. *An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that 2112 Saint James Drive (Riverland Terrace – James Island) (0.24 acre) (TMS #343-02-00-074) (Council District 11), annexed into the City of Charleston December 15, 2015 (#2015-194), be zoned Single-Family Residential (SR-1) classification.*
6. *An ordinance to amend Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) by amending Section 54-207 to permit landscape buffer and building setback requirements along street rights-of-way for mini-storage/self-storage facilities to be reduced or eliminated if the reduction or elimination is deemed appropriate by the Board of Architectural Review or Design Review Board.*
7. *An ordinance to amend the Code of the City of Charleston, South Carolina, Chapter 19, Sections 418(3), 419(a), and 292(c) to change the maximum charge for a nonconsensual boot from \$35.00 to \$50.00. (AS AMENDED)*

8. *An ordinance to amend the Business License Ordinance for the City of Charleston to change the due date for the payment of the City's Business License Fee from January 31st to February 19th, and to change the penalty dates to coincide with the amended due date.*
9. *An ordinance authorizing the Mayor to execute on behalf of the City an Amendment to the Lease Agreement dated April 16, 1996 originally between the City and Ann Street Associates, L.L.C., subsequently assigned to Member II, Inc., pertaining to approximately 8,640 square feet of space located in an area commonly known as the visitor's reception and transportation center.*
10. *An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that 595 & 601 King Street & 32 & 34 Spring Street (Cannonborough-Elliottborough - Peninsula) (0.60 acre) (TMS #460-08-02-018, 019, 020 & 022) (Council District 4), be rezoned from General Business (GB) classification to Mixed-Use/Workforce Housing (MU-2/WH) classification and to be rezoned from the 55/30 Old City Height District classification to the 80/30 Old City Height District classification and to include 34 Spring Street (TMS #460-08-02-022) in the Accommodations Overlay Zone (A-1) classification.*
11. *An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that property located on Concord Street & Laurens Street (Gadsden Wharf - Peninsula) (approximately 7.87 acres) (TMS #458-01-02-027, 062, 063, & 066) (Council District 1), be rezoned from Mixed-Use (MU-2) classification to Planned Unit Development (PUD) classification. (DEFERRED)*
12. *An ordinance to provide for the annexation of property known as Clements Ferry Road (19.02 acres) (a portion of TMS# 271-00-01-031), Cainhoy, Berkeley County, to the City of Charleston, shown within the area annexed upon a map attached hereto and make it part of District 1. (DEFERRED)*
13. *An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that Clements Ferry Road (Cainhoy) (approximately 19.02 acres) (a portion of TMS #271-00-01-031) (Council District 1), be zoned General Business (GB) classification. (DEFERRED)*
14. *An ordinance to provide for the annexation of property known as 2319 Savannah Highway (1.06 acres) (TMS# 310-06-00-114), West Ashley, Charleston County, to the City of Charleston, shown within the area annexed upon a map attached hereto and make it part of District 7. (DEFERRED)*
15. *An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that 2319 Savannah Highway (West Ashley) (approximately 1.06 acres) (TMS #310-06-00-114) (Council District 7), be zoned General Business (GB) classification. (AS AMENDED) (DEFERRED)*

16. *An ordinance to provide for the annexation of property known as Savannah Highway (1.49 acres) (TMS# 350-05-00-039; 350-05-00-040 and 350-05-00-160), West Ashley, Charleston County, to the City of Charleston, and includes all public rights-of-way shown within the area annexed upon a map attached hereto and make it part of District 7. (DEFERRED)*
17. *An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that Savannah Highway (West Ashley) (approximately 1.49 acres) (TMS #350-05-00-039, 040 and 160) (Council District 7), be zoned General Business (GB) classification. (DEFERRED FOR PUBLIC HEARING)*

M. Bills up for First Reading

1. An ordinance to amend Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) by amending the Marshes at Cooper River Planned Unit Development (PUD) Master Plan and Development Guidelines located off Clements Ferry Road (Cainhoy) (approximately 33.57 acres) (TMS# 267-00-00-004, 005, 010, 050 through 057, 069 and 071) and by changing the Zone Map to include property located on Clements Ferry Road (Cainhoy) (Berkeley County) (TMS# 267-00-00-049) (Council District 1), as PUD classification.
2. An ordinance to amend Section 54-943(c) of the Code of the City of Charleston (Zoning Ordinance) to modify the vote required of City Council in the event a matter is disapproved by the Planning Commission or when a petition in opposition to a matter signed by owners of twenty percent of the area of lots subject to the matter, or of those immediately adjacent on the sides and rear or directly opposite thereto is presented to Council to sixty (60%) percent of the members of Council present and voting.
3. An ordinance to amend Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) by amending Section 54-110 to change zoning regulations for non-conforming two-family and multi-family dwelling uses to require any increase in the number of bedrooms to be reviewed by the Board of Zoning Appeals – Zoning and amending Section 54-120 to change the definition “Multiple Dwelling” to “Multi-Family Dwelling”
4. An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that 61 Cannon Street (Cannonborough-Elliottborough - Peninsula) (0.38 acre) (TMS #460-12-01-008) (Council District 4), be rezoned from Limited Business (LB) classification to Mixed-Use Workforce Housing (MU-1/WH) classification. **(Planning Commission recommends disapproval; requires ¾ vote of Council.) (DEFERRED)**

5. An ordinance to amend the Code of the City of Charleston, South Carolina, Chapter 21, Section 115 to provide regulations for the operation of unmanned aerial vehicles. *(DEFERRED)*
6. An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that 975 King Street and 6 Cleveland Street (North Central - Peninsula) (0.132 acre) (TMS #463-15-04-084) (Council District 3), be rezoned from General Business (GB) classification to Mixed Use/Workforce Housing (MU-1/WH) classification. *(DEFERRED)*
7. An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that 76 Columbus Street (East Side - Peninsula) (approximately 0.229 acre) (TMS #459-05-04-093) (Council District 4), be rezoned from Diverse Residential (DR-2F) classification to General Business (GB) classification. ***(Requires ¾ vote of City Council; Planning Commission recommended Limited Business (LB).)*** *(DEFERRED)*
8. An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that property located on Murraywood Road (Johns Island) (approximately 1.80 acres) (a portion of TMS #312-00-00-026) (Council District 5), be rezoned from Single-Family Residential (SR-1) classification to Single and Two Family Residential (STR) classification. *(DEFERRED)*

N. Miscellaneous Business:

1. The next regular meeting of City Council will be February 23, 2016 at 5:00 p.m. at City Hall, 80 Broad Street.



I1

City of Charleston

John J. Tecklenburg
Mayor

MEMORANDUM

To: City Council

From: Mayor John J. Tecklenburg

Date: February 3, 2016

Re: Charleston Area Transportation Study Policy Committee ("CHATS") – Appointment

I would like to request the appointment of Councilmember Marvin Wagner to the CHATS Policy Committee to replace former Councilmember Aubry Alexander.

Thank you for your cooperation in this matter.



167.)
Ratification
Number _____

AN ORDINANCE

TO AMEND CHAPTER 54 OF THE CODE OF THE CITY OF CHARLESTON (ZONING ORDINANCE) BY ADDING TO ARTICLE 9 THEREOF A NEW PART 6 PROVIDING FOR A TEMPORARY MORATORIUM UNTIL MARCH 11, 2016, ON THE PROCESSING OF DEVELOPMENT APPLICATIONS AND ISSUING OF PERMITS FOR PROPERTIES ZONED GATHERING PLACE (GP). (AS AMENDED)

BE IT ORDAINED BY THE MAYOR AND COUNCILMEMBERS OF CHARLESTON, IN CITY COUNCIL ASSEMBLED:

Section 1. Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) is hereby amended by adding to Article 9 thereof a new Part 6 providing for a temporary moratorium on the processing of development applications and issuing of permits for properties zoned Gathering Place (GP), which Part 6 shall read as follows:

“Part 6: Temporary Moratorium

Sec. 54-970 Findings.

City Council makes the following findings of fact:

The Gathering Place (GP) District is designed to accommodate mix-use town, village and neighborhood centers at major intersections and along traditional commercial streets in the city to encourage diverse housing opportunities, with supporting pedestrian-oriented development to create an environment conducive to walking and biking. The GP District is intended to allow density, and to be sited at locations accessible to public transportation, to encourage an increased use of public transit and car-pooling opportunities, and a decrease in the use of individual automobiles. City Council endorses the principals behind, and intent of, the GP District.

In times recent, it has become apparent to Council that provisions of the GP District require study and a thoughtful vetting to assure that they are tailored to effectuate the purpose and intent of the District, and that they are fully understood by the development community and the public at large. City Council deems it in the

interests of the public, and in furtherance of the health, safety and welfare of its citizenry that the provisions of the GP District undergo review, with input from property owners, residents the business and development community, urban planning specialists and other interested stakeholders. As this review is occurring, City Council deems it appropriate to maintain the status quo with respect to properties zoned GP so that the review can proceed in an orderly, fair and meaningful manner.

City Council deems it necessary and proper, in order to sustain the peace, good order and success of the properties zoned GP being desirable places to live, work and recreate, and in furtherance of the powers of home rule devolved upon it by S. C. Code Ann. §5-7- 10 *et seq* and the land use, planning and zoning authority devolved upon it by S. C .Code Ann. § 6-29-310 *et seq* (South Carolina Local Government Comprehensive Planning Act) to enact a temporary moratorium, until March 11, 2016, on processing development applications and issuing permits for properties in the City zoned GP.

Sec. 54-971. Temporary Moratorium.

A temporary moratorium until March 11, 2016, is hereby imposed on the processing of development applications and issuing permits for properties in the City zoned GP.

Sec. 54-972. Purpose, Study and Interim Reports.

The purpose of the temporary moratorium is to allow the Department of Planning, Preservation and Sustainability, in consultation with other City departments, affected property owners and residents, the business and development community, urban planning specialists and other interested stakeholders, a discrete period of time to study the provisions of the GP District to assure that those provisions not just further the goals and objectives of the District, but also appropriately protect the quality of life of those living and working in the vicinity of the Districts, and to make such recommendations to Council as may be necessary to achieve these ends.

Sec. 54-972. Expiration.

The provisions of this Part 6 shall expire on March 11, 2016.”

Section 2. This Ordinance shall become effective upon ratification.

Ratified in City Council this _____ day of
_____ in the Year of Our Lord, 2016,
and in the _____th Year of the Independence of
the United States of America

John J. Tecklenburg, Mayor

ATTEST:

Clerk of Council

m1.)



Ratification
Number _____

AN ORDINANCE

TO AMEND CHAPTER 54 OF THE CODE OF THE CITY OF CHARLESTON (ZONING ORDINANCE) BY AMENDING THE MARSHES AT COOPER RIVER PLANNED UNIT DEVELOPMENT (PUD) MASTER PLAN AND DEVELOPMENT GUIDELINES LOCATED OFF CLEMENTS FERRY ROAD (CAINHOY) (APPROXIMATELY 33.57 ACRES) (TMS# 267-00-00-004, 005, 010, 050 THROUGH 057, 069 AND 071) AND BY CHANGING THE ZONE MAP TO INCLUDE PROPERTY LOCATED ON CLEMENTS FERRY ROAD (CAINHOY) (BERKELEY COUNTY) (TMS# 267-00-00-049) (COUNCIL DISTRICT 1), AS PUD CLASSIFICATION.

BE IT ORDAINED BY THE MAYOR AND COUNCIL MEMBERS OF CHARLESTON, IN CITY COUNCIL ASSEMBLED:

Section 1. That the Zoning Ordinance of the City of Charleston be, and the same hereby is amended, by amending the Marshes at Cooper River Planned Unit Development (PUD) Master Plan and Development Guidelines as more fully described in the document, Exhibit "A", which is attached hereto and made part of hereof:

Section 2. The Marshes at Cooper River Planned Unit Development (PUD) Master Plan and Development Guidelines be amended for property described as follows:

Property located off Clements Ferry Road (CainhoY) (approximately 33.57 acres) (TMS# 267-00-00-004, 005, 010, 050 through 057, 069 and 071).

Section 3. The Marshes at Cooper River Planned Unit Development (PUD) Master Plan and Development Guidelines be amended to include recently annexed property described as follows:

Property located off Clements Ferry Road (CainhoY) (approximately 1.01 acres) (TMS# 267-00-00-049).

Section 4. This Ordinance shall become effective upon ratification.

Ratified in City Council this _____ day of
_____ in the Year of Our Lord, 2016,
and in the _____th Year of the Independence of
the United States of America

By: _____

John J. Tecklenburg
Mayor, City of Charleston

Attest: _____

Vanessa Turner Maybank
Clerk of Council

Ordinance Amendment & Zoning 1

Clements Ferry Rd (Cainhoy)

TMS# 2670000004, 010, 049, 050 through 057, 069 & 071

34.58 ac.

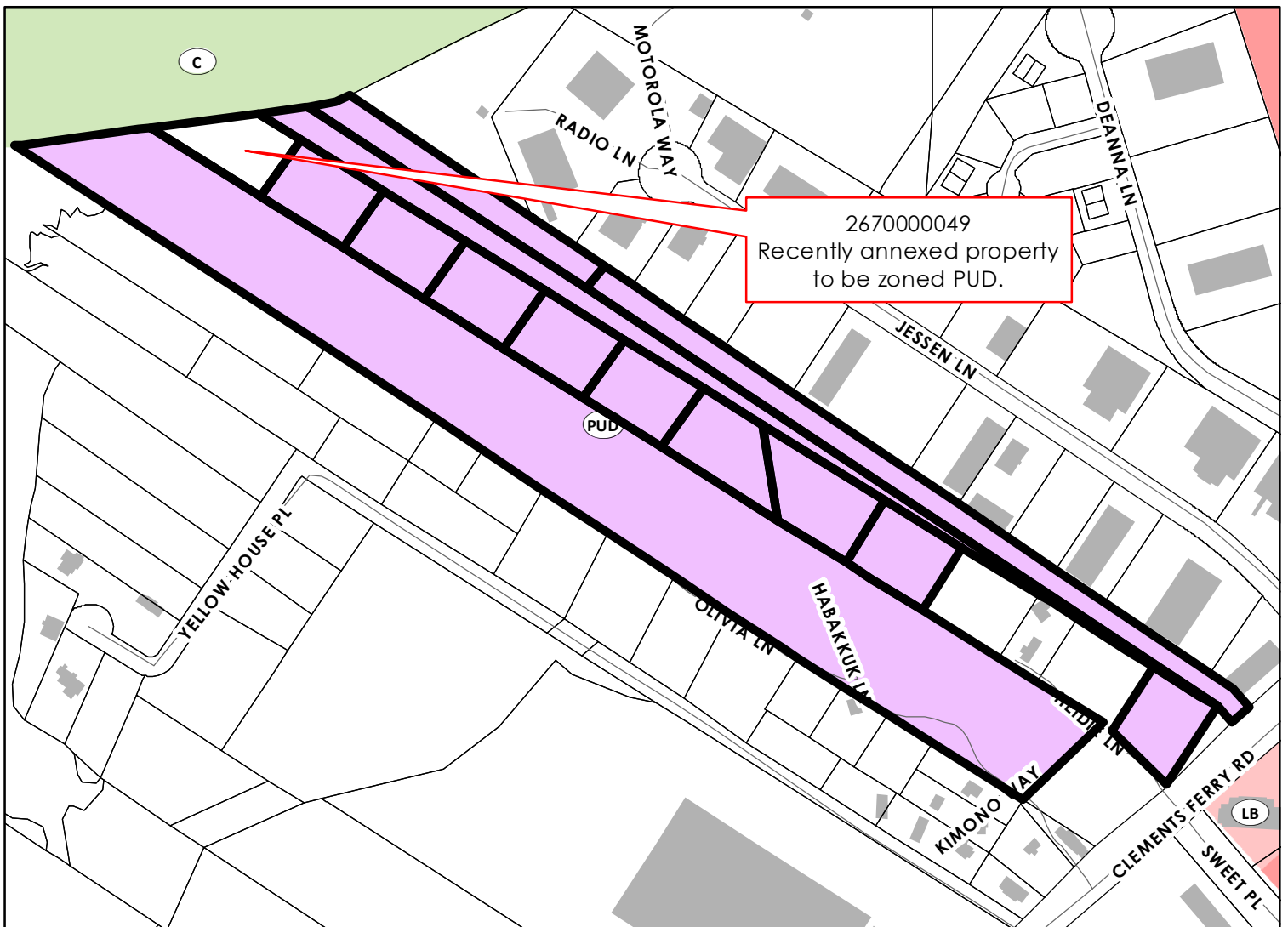
Request amendment to the Marshes at Cooper River Planned Unit Development (PUD) and to zone TMS# 2670000049 (approx. 1.01 ac.) as PUD and include it in the existing PUD (zoned Manufactured Residential (R-2) in Berkeley County).

Owner: Various Owners

Area



Location



DEVELOPMENT GUIDELINES

FOR

THE MARSHES AT COOPER RIVER

City of Charleston, South Carolina

October 13, 2014
Revised: December 15, 2014
Revised: January 11, 2015
Revised January 29, 2016

Prepared for:

Middle Street Residential, LLC
146 Williman Street
Charleston, SC 29403

Prepared by: Christopher D. Donato, Jr. PE
Project #: 7120.00

City ID – 160113-ClementsFerryRd-1



1250 Fairmont Avenue
Mount Pleasant, SC 29464
(843)224-4264
cdonato@sitecastsc.com

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2. TRAFFIC STUDY

3. CULTURAL RESOURCES

- 3.1. Brockington & Associates Report

4. LETTERS OF COORDINATION

- 4.1. Charleston Water System

5. APPENDIX

- 5.1. Survey with Trees
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- 5.4. Project Location Map
- 5.5. Aerial

1

DEVELOPMENT GUIDELINES

1.1(A) Relationship to the Zoning Ordinance

The Development Guidelines and Land Use Plan for The Marshes at Cooper River Planned Unit Development (PUD) District, attached hereto and made a part hereof, are part of the PUD conditional use Master Plan application submitted in accordance with the Zoning Ordinance of the City of Charleston, Article 2, Part 7 Sections 54-250, et seq. The Zoning Ordinance of the City of Charleston is incorporated herein by reference, except as amended herein.

No person shall erect or alter any building or structure on any tract of land or use any tract of land within The Marshes at Cooper River PUD except in conformance with these guidelines and regulations. Unless modified herein, definitions of terms used in The Marshes at Cooper River PUD Development Guidelines shall follow definitions listed in the Zoning Ordinance of the City of Charleston, as amended from time to time. Administration and enforcement of the adopted The Marshes at Cooper River Master Plan shall follow Article 9 of the Zoning Ordinance of the City of Charleston.

The Marshes at Cooper River PUD Master Plan was approved by Charleston City Council on _____ Ordinance Number _____.

1.1(B) Criteria for Review

The design guidelines for The Marshes at Cooper River subdivision:

- a) Are consistent with the City's adopted comprehensive plan, and all adopted sub-areas of the City;
- b) Better achieves the goals of adopted plans allowing for the development of this property due to existing grades and trees and cultural/historical value than would develop under the zoning district regulations;
- c) Is consistent with the City's adopted master road plan;
- d) Better protects and preserves natural and cultural resources than would development under other zoning district regulations, allowing for development with reduced impact to existing conditions;
- e) Is compatible with the density and maximum building height of adjacent developed neighborhoods and the zoning of adjacent undeveloped areas.
- f) Is compatible with the existing network of public streets in adjacent neighborhoods and areas;
- g) provides adequate parking for residents and users of the PUD;
- h) can be accommodated by existing and planned public facilities including but not limited to, roads, sewer, water, schools and parks;
- i) provides adequate public facilities, open space and recreational amenities; and
- j) adequately provides for the continued maintenance of common areas, open space, and other public facilities not dedicated to the city

1.2 Project Location and Description

The project site is comprised of 14 properties in Berkeley County, South Carolina. The parcel with tax map number (TMS) 267-00-00-005 is located within the limits of the City of Charleston and the remaining parcels, which are located in unincorporated Berkeley County, have the following TMS numbers: 267-00-00-004, 267-00-00-010, 267-00-00-049 267-00-00-050 through 267-00-00-057, 267-00-00-069 and 267-00-00-071.

The project site consists of approximately 34.58 gross acres. The property is bounded to the north by the Jessen Lane commercial park, to the south by residential development along Yellow House Road, to the east by Clements Ferry Road and to the west by marsh and the Cooper River. A project location map is located in the Appendix (Appendix #5.3)

1.3 Land Use Summary

The purpose of the (PUD) District is to provide for the creation of a planned, integrated community incorporating a broad range of residential types and commercial uses serving the inhabitants of the district and adjacent developments. This project meets the requirements for a PUD by providing several different uses which are listed below:

Single Family Residential - There are two different types of residential uses in this development: single family detached and single family attached (townhouses). The single family detached houses will primarily favor alley-fed, rear-loaded lots, with some traditional front-loaded lots. The single family attached lots will mostly be alley-fed with the opportunity for on-street parking in many locations. The variety of single family home types and lot configurations will attract a diversity of price points that will equally benefit from a modern, amenitized neighborhood.

Commercial - The commercial component of this development will follow the General Business (GB) Zoning set forth in the City of Charleston Zoning Code. The GB district is intended to provide for a broad range of commercial uses and activities. It is the most intensive commercial zoning district. Prohibited uses include junk and salvage yards, storage yards (except for vehicles and boats), and warehouses including self-storage mini-warehouses. Automotive repair shops, veterinary clinics, and stables are permitted only as special exceptions subject to the approval of the Board of Zoning Appeals.

Open Space – The open space for this project centers around a freshwater wetland that bisects the property. This will be a great gathering place for the community as it serves as the central point along the interconnected walking trail between the town square and the amenity center. The concept of this system is that a resident can travel from one end of the subdivision to the other without having to walk along a road.

The proposed land use is as follows:

(All acreages are approximate and subject to change)

Gross Land Area	34.58 Ac.
Critical (Salt Water) Marsh	0.85 Ac.
Total Wetlands	2.10 Ac.
Maximum Dwelling Units	160 DU
Net Density (High Ground Only)	4.93 DU/Ac.
Net Developable Land	32.48 Ac.

Land Use	Area	Dwelling Units (approx.)
Single Family Res. Detached	11.16 ac.	120
Single Family Res Attached	1.53 ac	40
Commercial District	1.00 ac.	NA
Shared Use Open Space	0.37 ac.	NA

1.4 Zoning Districts

1.4.1 Single Family Residential Detached (Type A, B, & C Single Family)

Permitted Uses:

1. Single-family detached dwellings.
2. Park, playground or athletic field, not operated as a business for profit, except that outdoor lighting shall be permitted only as an exception where the Board of Appeals shall find that the lights will not adversely impact adjacent residential areas.
3. Non-commercial horticultural activity, including garden or greenhouse.
4. Home occupations may be established in a dwelling unit as per the City of Charleston Zoning Ordinance
5. Signs or bulletin boards - see City of Charleston Zoning Ordinance
6. Family day care homes subject to permitting procedures and restrictions for family day care homes in single family residential districts as specified in the City of Charleston Zoning Ordinance.
7. Sales Office – A temporary sales office will be allowed and located in a Model Home. See Section 1.12

Zone District Area	Setbacks for Principal Buildings <small>*see note</small>					Minimum Lot Area Per Family Type of Dwelling Unit						Accessory Bldgs. To Residence Setback Required <small>*see note</small>	
	Total	Front	Rear	Total Side	Min. Side	Single Fam.	Two Fam.	Multi-Fam.	Max. % Lot Occup for All Bldgs	Max. Height Limits Structures	Max. Height Limits Fences	From Rear	From Side (total)
SFR District A,B,C	15'	10'	5'	6'	3'	3,000	N/A	N/A	65%	36'	6'	5'	3'

*Note - Critical Line Buffer and Building Setback supersede the above

- i. Maximum Driveway width of 12 ft within the front 10 ft of the lot
- ii. Dwelling units or heated living space are allowed in accessory buildings (i.e. Mother-in-law Suites on a shared meter with the main house.)
- iii. Front-loaded garages must be setback a minimum of 10 ft from the principal building frontage.
- iv. For alley served lots, no front driveway will be permitted
- v. Porches and/or stairs can encroach into the front setback up to 5 ft.
- vi. Lot width shall be a minimum of 20 ft at the road right of way.

1.4.2 Single Family Residential Attached

Permitted Uses:

1. Single-family attached (townhouse) dwellings.
2. Park, playground or athletic field, not operated as a business for profit, except that outdoor lighting shall be permitted only as an exception where the Board of Appeals shall find that the lights will not adversely impact adjacent residential areas.
3. Non-commercial horticultural activity, including garden or greenhouse.
4. Home occupations may be established in a dwelling unit as per the City of Charleston Zoning Ordinance
5. Signs or bulletin boards - see City of Charleston Zoning Ordinance
6. Family day care homes subject to permitting procedures and restrictions for family day care homes in single family residential districts as specified in the City of Charleston Zoning Ordinance.

Zone District Area	Setbacks for Principal Buildings <small>*see note</small>					Minimum Lot Area Per Family Type of Dwelling Unit						Accessory Bldgs. To Residence Setback Required <small>*see note</small>	
	Total	Front	Rear	Total Side **	Min. Side **	Single Fam.	Two Fam.	Multi-Fam.	Max. % Lot Occup for All Bldgs	Max. Height Limits Structures	Max. Height Limits Fences	From Rear	From Side (total)
SFR District D	0'	0'	0'	N/A	6'	1,300	N/A	N/A	100%	42'	6'	0'	0'

*Note - Critical Line Buffer and Building Setback supersede the above.

** Side setbacks shall be from exterior units. 10 ft Setbacks from Public Rights of Way, 6 ft from Property Line with adjacent buildings.

- i. Maximum Driveway width of 12 ft within the front 10 ft of the lot
- ii. Dwelling units or heated living space are allowed in accessory buildings (i.e. Mother-in-law Suites on a shared meter with the main house.)
- iii. Front-loaded garages must be setback a minimum of 10 ft from the principal building frontage.
- iv. For alley served lots, no front driveway will be permitted
- v. Porches and/or stairs can encroach into the front setback up to 5 ft.
- vi. Lot width shall be a minimum of 18 ft at the road right of way.

1.4.3 Commercial District

The GB district is intended to provide for a broad range of commercial uses and activities. It is the most intensive commercial zoning district. Prohibited uses include junk and salvage yards, storage yards (except for vehicles and boats), and warehouses including self-storage mini-warehouses. Automotive repair shops, veterinary clinics, and stables are permitted only as special exceptions subject to the approval of the Board of Zoning Appeals.

Permitted uses: The permitted uses are detailed in the City of Charleston Zoning Code.

Zone District Area	Setbacks for Principal Buildings <small>*see note</small>					Minimum Lot Area Per Family Type of Dwelling Unit						Accessory Bldgs. To Residence Setback Required <small>*see note</small>	
	Total	Front	Rear	Total Side	Min. Side	Single Fam.	Two Fam.	Multi-Fam.	Max. % Lot Occup for All Bldgs	Max. Height Limits Structures	Max. Height Limits Fences	From Rear	From Side (total)
GB	NR	NR	NR	N/R	N/R	N/A	N/A	N/A	N/A	45'	N/A	N/A	N/A

1.5 Open Space

20% of the gross project acreage must be set aside as permanent open space. Of this open space, 25 percent must be set aside as usable/open space. The purpose of this section is to describe the characteristics of open space land and uses allowed within permanent open space.

By using minimum height and area requirements and variations in unit types, lots and units may be clustered to create additional open space within neighborhoods.

Open spaces and parks designated on the Master Plan or identified during Site Plan approval shall be improved or conveyed as adjacent development phases are developed. Potential uses that may be located within individual parks are listed within this section.

The developers/owner shall be responsible for the maintenance of the open space. This may be transferred by means of the establishment of a homeowner's association or neighborhood regime.

1.5.1 Shared Use Open Space

Shared Use Open space is designed to have either an enclosed amenity center or an open air pavilion that can be used for event such as an oyster roast or community gathering.

1. We envision The Marshes at Cooper River to be a biking/walking community and have attempted to minimize Open Space parking to consist of up to two on-street or off-street parking spaces, including one designated ADA parking space. The Open Space site plan will have to be approved by the City of Charleston.
2. No setbacks, buffers, minimum lot size, building occupancy are required. Critical line buffer and setbacks apply.
3. Maximum building height will be 42' measured from the base flood elevation.

1.5.2 Open Space Requirement

A total of 6.71 acres of open space (20 percent) is required with the PUD districts, of which 1.68 acres (25 percent) is required to be Active /Usable open space. Open space is provided is as follows.

Total Upland Usable Open Space	4.94 ac.
1. Usable/Active Open Space	2.54 ac. (1.73 ac. required)
2. Community Amenity Open Space	0.37 ac.
3. Natural Upland Open Space	2.03
Wetlands/Salt Marsh	2.10 ac
Total Open Space Provided	7.04 ac. (6.92 ac. required)

1.6 Buffers

Buffers within the PUD District shall meet or exceed requirements of the City of Charleston Zoning Ordinance and/or any applicable deed restrictions or agreements which ever is more stringent.

Buffer areas should be preserved and protected during the construction process and existing vegetation should be augmented with new plant material as necessary to provide a consistent sense of spatial separation and effectively screen different land uses, zoning designations or roads visually.

Landscaping should meet or exceed requirements of the City of Charleston Zoning Ordinance, Section 54-110. Landscape regulations apply specifically to:

1. Street Frontage
2. Parking Lots
3. Buffers and Screening
4. Refuse Collection Facilities

Critical Line buffer to be a minimum of 25 ft plus a 10 ft building setback.

All projects affected by the landscape and screening requirements shall submit a plan for review and approval by the Zoning Division. The plan shall be consistent with the requirements outlined in the City of Charleston Zoning Ordinance. Buffers are not required between the different Districts in the PUD.

1.7 Tree Summary

The trees depicted on the Master Plan (Appendix 5.2) shall adhere to Article 16 of the City of Charleston Zoning Ordinance.

It is of utmost importance to the PUD District that significant existing vegetation be preserved whenever possible. All structures and other improvements should be planned in such a manner that existing vegetation, particularly healthy and viable Grand trees, are preserved and protected where possible.

1.8 Right of Ways

Street types as indicated on the Master Plan will be subject to review and approval during the Technical Review Committee (TRC) process and may be substituted with another listed street type from the chart below. Minor changes to the design standards below may be approved by staff during the TRC review of the construction drawings. Private roads are allowed and should meet the design standards of the similar public roads in the development. The site distance visibility at all exits and/or intersections will be maintained in accordance to the SCDOT's Access and Roadside Management Standards manual. Directional and traffic signage must conform to the MUTCD standards.

Street Type	R-O-W	Travel Lanes*	On-street Parking	Curb	Curb/Intersection Radii	Street trees 2-Sides	Street tree spacing	Sidewalks
Residential Street 1	50' min.	Two-ways 10' min. travel lane	7' (1 side)	Vert.	15	Tree Well ⁽¹⁾ or Planting Strip ⁽²⁾	30'—50'	5' min. (1 side)
Residential Street 2	50' min.	Two-ways 10' min. travel lane	n/a	Vert.	15	Tree Well ⁽¹⁾ or Planting Strip ⁽²⁾	50'-60'	5' min. Sidewalk or Trail (1 side)
Residential Road	35' min.	Two-ways 11' min. travel lane	n/a	Vert.	15	Tree Well ⁽¹⁾ or Planting Strip ⁽²⁾	30'—50'	n/a
Alley	20' min.	One-way 14' min. travel lane	n/a	n/a	25'	n/a	n/a	n/a
One Way Street	35' min.	One-way 14' min. travel lane	7' (1 side)	Vert.	15'	Tree Well ⁽¹⁾ or Planting Strip ⁽²⁾	30'—50'	5' min. (1 side)

- All Travel Lanes and Parking Lanes do not include the width of the gutter.
- No gates are permitted
- Street lights will be required on all roads and alleys
- No Parking will be permitted on any of these streets that do not provide the adequate width necessary for on-street parking. The City of Charleston's Department of Traffic and Transportation has the authority to alter or restrict parking on any of these streets as necessary to provide safe and efficient travel lanes and parking areas

⁽¹⁾ – Tree Wells to be a minimum of 24 sqft

⁽²⁾ – Planting Street to be a minimum of 4' in width

1.9 Drainage Basin Analysis

The Marshes at Cooper River subdivision will be developed within the current stormwater management guidelines of the City of Charleston and South Carolina Department of Health and Environmental Control for water quality and quantity. Due to the existing soil types, a detention waver may be necessary to meet certain storm water events in the post-developed condition.

The existing drainage patterns for this parcel drain to the existing wetlands in the center of the parcels and Yellow House Creek to the northwest. The wetlands and critical area have been certified by OCRM and ACOE. The majority of the land is wooded. The majority of the site does drain to the central wetland which ultimately leads to Yellow House Creek. The topography has elevations ranging from approximate 4.0 to 46.0 Mean Sea Level (NAVD 29). The proposed project will include a drainage plan in accordance with the City requirements. The proposed drainage for the development will maintain the existing drainage pattern through a series of drainage boxes, pipes, swales and ponds. Conceptual stormwater management designs may call for the use of ponds and individual lot drainage systems to achieve adequate control of run-off quality. Subsequent stormwater management plans will include appropriate best management practices for stormwater control.

1.10 Cultural Resources

No cultural resources were found on this site. Please see Section 3 for Brockington & Associates report.

1.11 Docks

Community dock may be constructed as part of the Shared Use Community Open Space. A master dock plan will be developed that meets OCRM and City of Charleston requirements.

1.12 Model Homes

There will be a maximum of three Model Homes allowed in each Residential District (per Phase) of the development. A sales office can be located inside a model home (see section 1.4.1)

2

TRAFFIC STUDY



SRS Engineering, LLC
801 Mohawk Drive
West Columbia, SC 29169
(803) 739-2548 fax

December 15, 2014

Mr. Jack Daniels
Middle Street Partners, LLC
2113 Middle St., Suite 309
Sullivan's Island, SC 29482

**RE: Traffic Impact and Access Study
The Marshes at Cooper River
Charleston, SC**

Dear Mr. Daniels:

As requested, SRS Engineering, LLC (SRS) has completed an assessment of the traffic impacts associated with the proposed mixed-use development to be known as The Marshes at Cooper River to be located along the north side of Clements Ferry Road opposite the existing SPARC campus within the municipal limits of the City of Charleston, South Carolina. The following provides a summary of this study's findings:

PROJECT DESCRIPTION

The project site (31.5-acres) is generally located the north side of Clements Ferry Road, opposite the SPARC campus, between Heidie Lane and Jessen Lane and is currently undeveloped. The project proposal is to develop the project with the following uses/densities:

- 135 Single-Family Residences;
- 25 Residential Townhomes; and
- an estimated 10,000 square-feet (sf) of commercial space assumed as office space.

As scheduled, this project is planned to be constructed fully and operational within approximately three years. For purposes of this report, a 2017 horizon/completion year has been utilized.

There is an existing access drive for the project that connects with Clements Ferry Road that is paved for approximately 50-feet and is then gated. This existing access is located approximately 250-feet east of Heidie Lane and 250-feet west Jessen Lane and is offset approximately 100-feet west of the existing SPARC access on the south side of Clements Ferry Road. The current plan is to utilize this existing access drive for access for the project. Details regarding this access drive an additional future connectivity are discussed in the Mitigation section of this report.

A general site location map is provided as **Figure 1**. The proposed site plan is shown in **Figure 2**.

EXISTING CONDITIONS

A comprehensive field inventory of the project study area has been conducted. The field inventory included a collection of geometric data, traffic volumes and traffic control within the study area. The following section details the current traffic conditions and includes a description of the roadway serving the site and traffic flow in close proximity to the project site.

Study Area Roadway

Clements Ferry Road (S-8-33) - is currently a two-lane divided east/west oriented roadway within the study area. Throughout the study area, this roadway provides one travel lane in each direction generally separated by a center two-way left-turn lane (TWLTL). This roadway has a posted speed limit of 45 miles-per-hour (mph) and is under the jurisdiction of the South Carolina Department of Transportation (SCDOT).

Traffic Volumes

In order to determine the existing traffic volume flow patterns along site frontage, weekday morning (7:00-9:00 AM) and evening (4:00-6:00 PM) peak period count data was gathered for Clements Ferry Road at the point of the existing access that will be utilized for the project. It should be noted that the existing access is currently not servicing traffic volumes.

Figure 3, located in the appendix of this report, graphically depicts the Existing AM and PM peak-hour traffic volumes for Clements Ferry Road fronting the site.

FUTURE CONDITIONS

Traffic analyses for future conditions have been conducted for the proposed access intersection with Clements Ferry Road for Future Build Conditions.

Annual Growth Rate

Growth in the area was investigated via a nearby SCDOT (*Berkeley County*) permanent count station (Station #269) along Clements Ferry Road as well as growth rate information utilized in recent traffic studies. Based on this information, a generalized **3**-percent per year growth rate was developed for the study area.

Planned Roadway Improvements

Based on conversations with City/SCDOT staff, Clements Ferry Road (S-8-33) will be widened from a point east of Interstate 526 to SC 41 to provide two travel lanes in each direction separated by a striped center median treatment. This project is fully funded and is currently in the planning/design phase. It is scheduled to be completed by 2016 and has therefore been assumed to be complete for future year analyses contained within this report.

Furthermore, it is understood that there are ongoing discussions regarding a potential future traffic signal along this segment of Clements Ferry Road although a formal plan has not been selected/approved. One option that has been reviewed in the past is a re-alignment of Deanna Lane such that it would intersect Clements Ferry Road directly opposite Wambaw Creek Road to create a formal four-legged intersection with the installation of traffic signal control. Another option that has been discussed is a potential signal

at Rebellion Farms Place. Recent correspondence with SCDOT indicates that the Clements Ferry Road widening plans are to a point where no changes are being made.

Site-Generated Traffic

Traffic volumes expected to be generated by the proposed project were forecasted using the Eighth Edition of the ITE *Trip Generation* manual, as published by the Institute of Transportation Engineers. Land-Use Codes #210 (Single Family Residential), #230 (Residential Condominium/Townhome) and #710 (General Office) were used to estimate the specific site-generated traffic. **Table 1** depicts the anticipated site-generated traffic.

Table 1
PROJECT TRIP-GENERATION SUMMARY¹
The Marshes at Cooper River

Time Period	135 Lots Single-Family Residences² (a)	25 Residential Townhomes³ (b)	10,000 sf General Office⁴ (c)	Total Development Trips (a+b+c)
Weekday Daily	1,370	190	110	1,670
AM Peak-Hour				
Enter	26	3	14	43
<u>Exit</u>	<u>78</u>	<u>14</u>	<u>2</u>	<u>94</u>
Total	104	17	16	137
PM Peak-Hour				
Enter	87	13	3	103
<u>Exit</u>	<u>51</u>	<u>6</u>	<u>12</u>	<u>69</u>
Total	138	19	15	172

1. ITE Trip Generation manual, Eighth Edition.
2. ITE Trip Generation manual - LUC 210 (Single-Family Detached Housing)
3. ITE Trip Generation manual - LUC 230 (Residential Condominium/Townhouse)
4. ITE Trip Generation manual - LUC 710 (General Office)

As shown, the project as a whole can be expected to generate a total of 1,670 two-way vehicular trips on a weekday daily basis, of which a total of 137 trips (43 entering, 94 exiting) can be expected during the AM peak-hour. During the PM peak-hour, 172 trips (103 entering, 69 exiting) can be expected.

As shown, the commercial component (office space) is a relatively small component of project trips.

Distribution Pattern

The directional distribution of site-generated traffic on the study area roadways has been based on an evaluation of existing travel patterns within the study area and the proximity of the project to I 526. The distribution pattern utilized for this project is shown in **Table 2**.

Table 2
TRIP DISTRIBUTION PATTERN
The Marshes at Cooper River

Roadway	Direction To/From	AM & PM PEAK-HOUR
		Enter/Exit
Clements Ferry Road	East (toward SC 41)	25
	West (toward Interstate 526)	75
Total		100

Note: Based on the existing and projected future traffic patterns.

This distribution pattern has been applied to the site-generated traffic volumes from Table 1 to develop the site-generated specific volumes for the study area intersections illustrated in **Figure 4**.

Build Traffic Conditions

The site-generated traffic, as depicted in Figure 4, has been combined with the projected volumes for Clements Ferry Road for 2017 (Existing volumes grown at 3-percent annually). This results in the peak-hour 2017 Build traffic volumes, which are graphically depicted in **Figure 5**. These volumes were used as the basis to determine potential improvement measures needed at the proposed site access intersection.

TRAFFIC OPERATIONS

Analysis Methodology

A primary result of capacity analysis is the assignment of Level-of-Service (LOS) to traffic facilities under various traffic flow conditions. The concept of Level-of-Service is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. A Level-of-Service designation provides an index to the quality of traffic flow in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

Six Levels-of-Service are defined for each type of facility (signalized and unsignalized intersections). They are given letter designations from A to F, with LOS A representing the best operating conditions and LOS F the worst.

Since the Level-of-Service of a traffic facility is a function of the traffic flows placed upon it, such a facility may operate at a wide range of Levels-of-Service depending on the time of day, day of week, or period of a year.

Capacity Analysis Results

As part of this traffic study, capacity analyses have been performed for the site access intersection under Future conditions, which account for normal background growth in traffic and specific traffic related to the project. The results of these analyses are summarized in **Table 3**.

Table 3
LEVEL-OF-SERVICE SUMMARY
The Marshes at Cooper River

<u>Unsignalized Intersection</u>	<u>Time Period</u>	<u>2017 BUILD CONDITIONS</u>	
		<u>Delay^a</u>	<u>LOS^b</u>
Clements Ferry Road at Site Access	AM	19.1	C
	PM	19.3	C

a. Delay in seconds-per-vehicle.

b. LOS = Level-of-Service.

GENERAL NOTES:

1. For unsignalized intersections, Delay is representative of critical movement/approach.

As shown in Table 3, the site access intersection with Clements Ferry Road is expected to operate acceptably during both peak hours with the incorporation of recommended geometry and traffic control detailed in the next section of this report. It should be noted that this analysis assumes the widening of Clements Ferry Road to a four-lane divided cross-section as currently proposed.

MITIGATION

The final phase of the analysis process is to identify mitigating measures which may either minimize the impact of the project on the transportation system or tend to alleviate poor service levels not caused by the project. The following section describes measures necessary to mitigate the project's impact.

Proposed Site Access

As planned, access to/from the site will be provided via a single access drive to Clements Ferry Road at an existing access drive that is located approximately 250-feet east of Heidie Lane and 250-feet west Jessen Lane. It should be noted that this access is offset approximately 100-feet west of the existing SPARC access on the south side of Clements Ferry Road. The proposed project access is an existing paved connection to Clements Ferry Road that is shown to remain in the SCDOT widening plans for Clements Ferry Road.

Left-turns into the project will be accommodated via the center striped median within Clements Ferry Road, which will allow left-turns to store and minimize impacts on eastbound Clements Ferry Road through volumes. The volume of right-turns entering the site during peak hours (11 during AM; 26 during PM) do not warrant a dedicated right-turn lane for westbound Clements Ferry Road.

With regards to the access road approach, consideration should be given to providing two lanes exiting (separate left and separate right) with one lane for entrances. This will allow for right-turns exiting the project to maneuver around a queued left-turning vehicle. The access road approach should be placed under STOP sign control.

Provisions for future interconnectivity to the east and west should be planned so as to allow potential future connectivity to a future traffic signal location along Clements Ferry Road.

SUMMARY

SRS has completed a Traffic Impact and Access Study relative to a proposed mixed-used development along the north side of Clements Ferry Road to be known as The Marshes at Cooper River. A total of 160 residential units are proposed along with a small commercial component planned as office space. The site is currently undeveloped but does have an existing paved access to Clements Ferry Road approximately half way between Heidie Lane and Jessen Lane, offset with the existing SPARC access on the south side of Clements Ferry Road.

Clements Ferry Road is scheduled to be widened for an additional through lane in each direction. This widening project is expected to begin in the near future, and is expected to be completed by the time The Marshes at Cooper River project is completed. The widening project will result in a striped median at the point of site access that will service eastbound left-turns into the site. A dedicated westbound right-turn deceleration lane is not recommended based on projected right-turn volumes. The site access road approach should be improved to provide for two exiting lanes (separate left and separate right) with one entering lane.

It is understood that there are ongoing discussions regarding a potential future traffic signal along this segment of Clements Ferry Road. One option that has been reviewed in the past is a re-alignment of Deanna Lane such that it would intersect Clements Ferry Road directly opposite Wambaw Creek Road to create a formal four-legged intersection with the installation of traffic signal control. Another option that has been discussed is a potential signal at Rebellion Farms Place. It is understood that a formal decision has not been made with regards to this future signalized intersection location. SCDOT has indicated that the Clements Ferry Road plans are to a point where significant changes are not being made. It is recommended that provisions for interconnectivity be provided within the site to allow for potential connectivity to a future traffic signal either to the east or west of the site.

If you have any questions or comments regarding any information contained within this report, please contact me at (803) 252-1799.

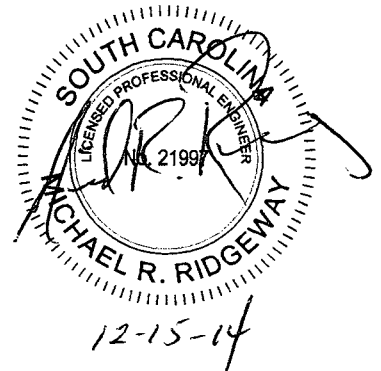
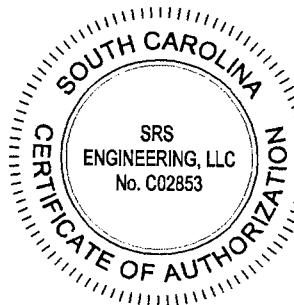
Regards,

SRS ENGINEERING, LLC



Mike Ridgeway, P.E.
Principal

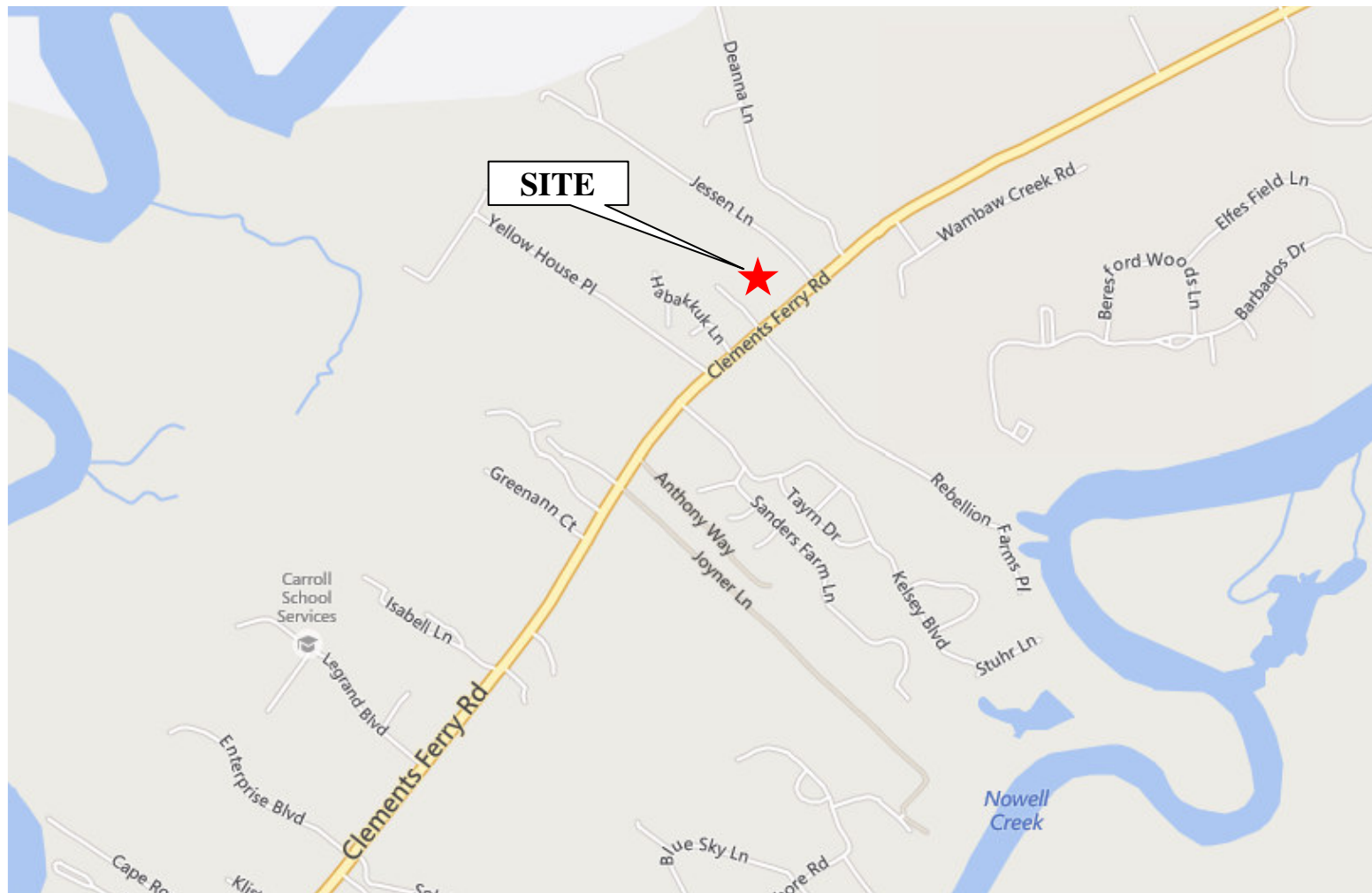
Attachments



APPENDIX

- Figures
- Capacity Analyses

FIGURES

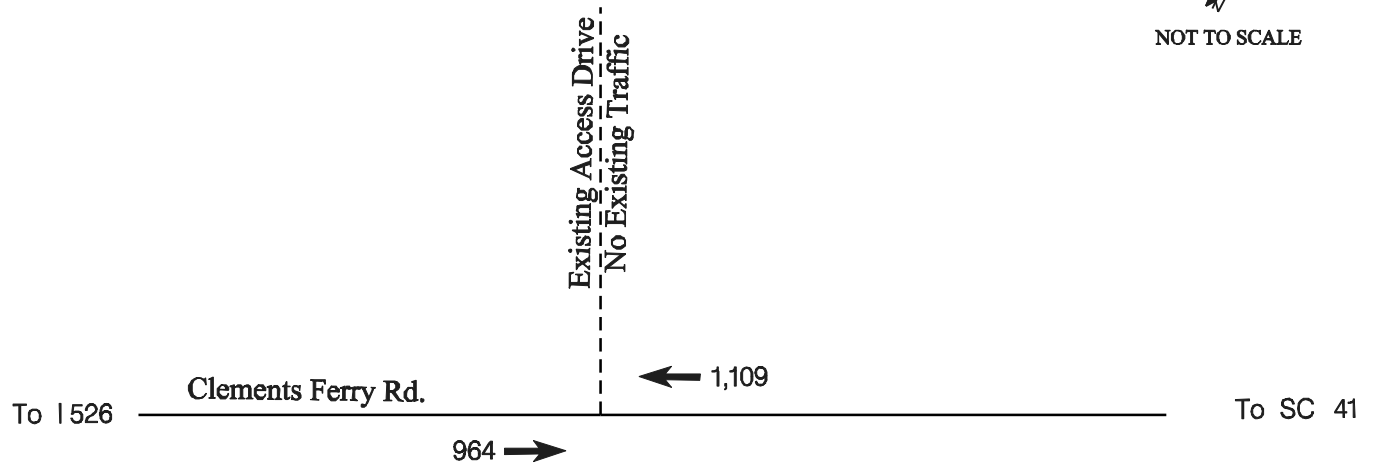
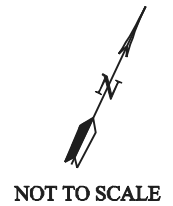


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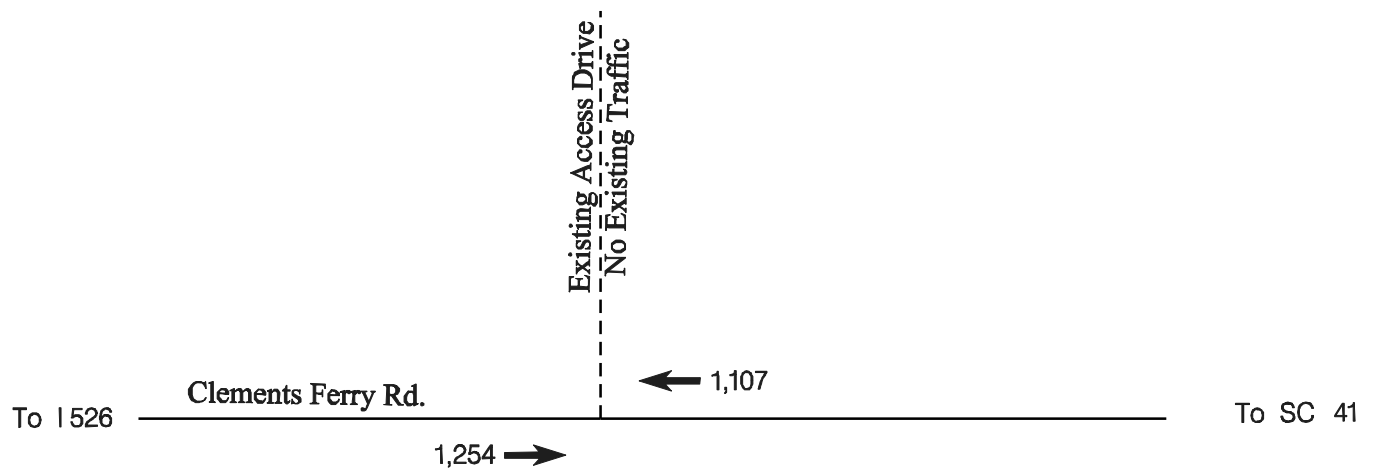
Figure 1
SITE LOCATION MAP
The Marshes at Cooper River : Charleston, SC



AM PEAK-HOUR



PM PEAK-HOUR



LEGEND

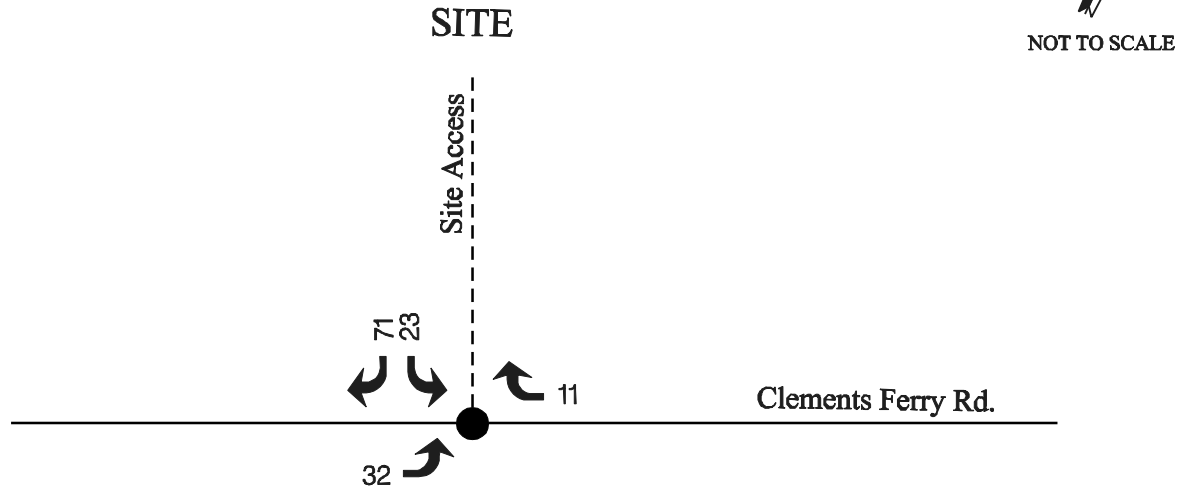
● = Unsignalized Intersection

Figure 3

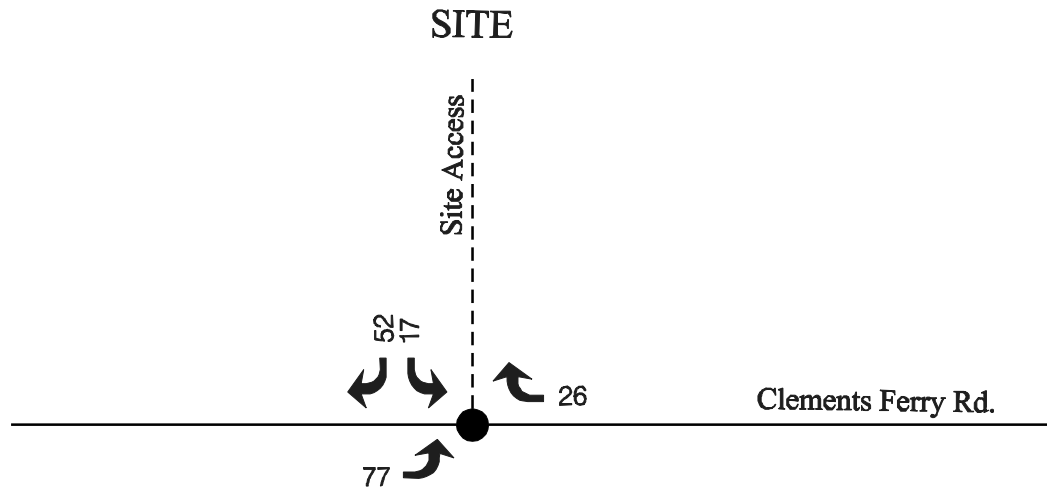
EXISTING TRAFFIC VOLUMES

The Marshes at Cooper River: Charleston, SC

AM PEAK-HOUR



PM PEAK-HOUR



LEGEND

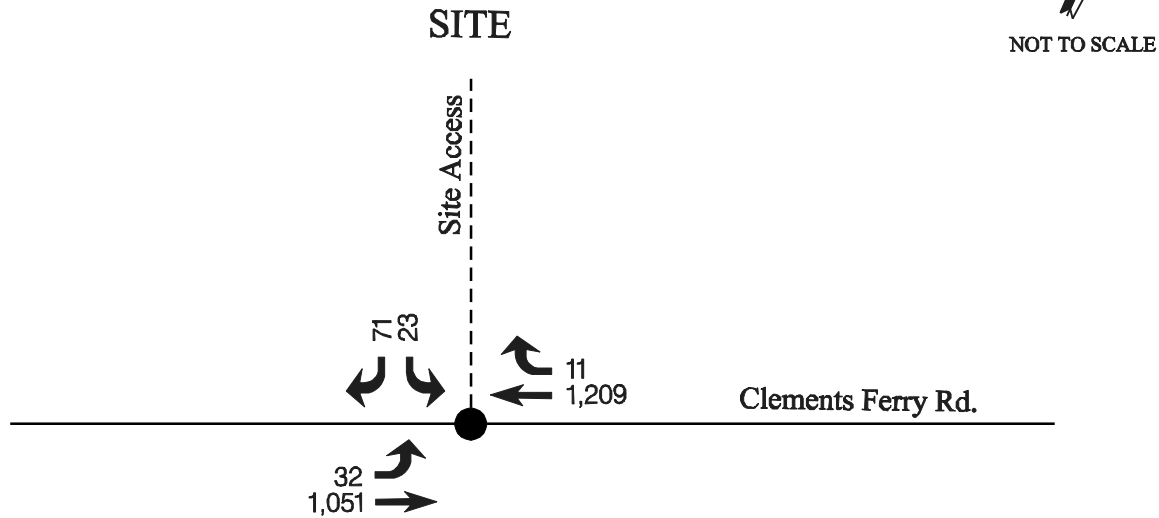
● = Unsignalized Intersection

Figure 4

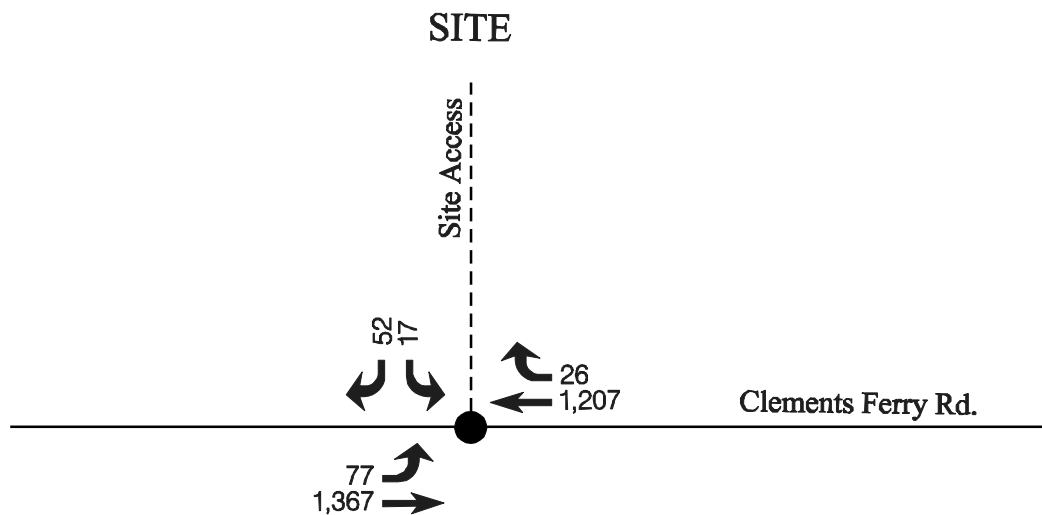
SITE-GENERATED TRAFFIC VOLUMES

The Marshes at Cooper River: Charleston, SC

AM PEAK-HOUR



PM PEAK-HOUR



LEGEND

● = Unsignalized Intersection

Note: These volumes include 3% annual background growth for Clements Ferry Road.

Figure 5

2017 BUILD TRAFFIC VOLUMES

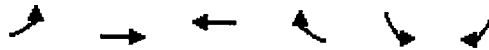
The Marshes at Cooper River: Charleston, SC






CAPACITY ANALYSES

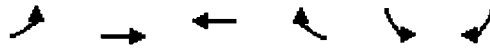
2017 BUILD CONDITIONS
5: Clements Ferry & Site Access

AM PEAK HOUR

12/15/2014



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Volume (veh/h)	32	1051	1209	11	23	71	
Sign Control		Free	Free		Stop		
Grade		0%	0%		0%		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	36	1168	1343	12	26	79	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type		TW	LT	TW	LT		
Median storage (veh)		2	2				
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	1356				2004	678	
vC1, stage 1 conf vol					1349		
vC2, stage 2 conf vol					655		
vCu, unblocked vol	1356				2004	678	
tC, single (s)	4.1				6.8	6.9	
tC, 2 stage (s)					5.8		
tF (s)	2.2				3.5	3.3	
p0 queue free %	93				86	80	
cM capacity (veh/h)	503				186	395	
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1	SB 2
Volume Total	36	584	584	896	460	26	79
Volume Left	36	0	0	0	0	26	0
Volume Right	0	0	0	0	12	0	79
cSH	503	1700	1700	1700	1700	186	395
Volume to Capacity	0.07	0.34	0.34	0.53	0.27	0.14	0.20
Queue Length 95th (ft)	6	0	0	0	0	12	18
Control Delay (s)	12.7	0.0	0.0	0.0	0.0	27.5	16.4
Lane LOS	B					D	C
Approach Delay (s)	0.4			0.0		19.1	
Approach LOS						C	
Intersection Summary							
Average Delay	0.9						
Intersection Capacity Utilization	44.8%			ICU Level of Service		A	
Analysis Period (min)	15						



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↕	↕		↰	↰
Volume (veh/h)	77	1367	1207	26	17	52
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	86	1519	1341	29	19	58
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh		2	2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1370				2286	685
vC1, stage 1 conf vol					1356	
vC2, stage 2 conf vol					931	
vCu, unblocked vol	1370				2286	685
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	83				88	85
cM capacity (veh/h)	497				162	391

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1	SB 2
Volume Total	86	759	759	894	476	19	58
Volume Left	86	0	0	0	0	19	0
Volume Right	0	0	0	0	29	0	58
cSH	497	1700	1700	1700	1700	162	391
Volume to Capacity	0.17	0.45	0.45	0.53	0.28	0.12	0.15
Queue Length 95th (ft)	15	0	0	0	0	10	13
Control Delay (s)	13.7	0.0	0.0	0.0	0.0	30.1	15.8
Lane LOS	B					D	C
Approach Delay (s)	0.7			0.0		19.3	
Approach LOS						C	

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		

3

CULTURAL RESOURCES

(Full Report has been provided to the City of Charleston. The section included in this PUD is the results/recommendations of the report. Please contact our office if a pdf copy is desired.)

4.0 Results and Recommendations

4.1 Results

Brockington designed the intensive cultural resources survey of the 32-acre Cabin Creek Tract to identify and assess all cultural resources in the project tract. During these investigations, we identified three new archaeological sites (Sites 38BK2552-38BK2554) and one isolated artifact occurrence (Isolate 1). The discussion below describes each of these cultural resources and provides NRHP eligibility and management recommendations.

4.1.1 Site 38BK2552

Cultural Affiliation – *Early/Middle Woodland; late nineteenth-early-twentieth century*

Site Type – *ceramic scatter; domestic scatter*

Site Dimensions – *45 meters north-south (n/s) by 75 meters east-west (e/w)*

Soil Type – *Cainhoy fine sand (Long 1980:12)*

Elevation – *10.7 meters amsl*

Nearest Water Source – *Unnamed swamp; tributary of Yellow House Creek*

Present Vegetation – *Savannah: predominantly grass with sparse hardwoods*

NRHP Recommendation – *Not eligible*

Management Recommendations – *No further management*

Site 38BK2552 is a surface/subsurface scatter of Pre-Contact ceramic artifacts and Post-Contact architectural and kitchen artifacts located in the central portion of the project tract. Site 38BK2552 is likely associated with 38BK2553, another multi-component archaeological site located across a wetland to the west (see Figures 1.1 and 4.1). Figure 4.2 provides views of 38BK2552. Site 38BK2552 measures 45-by-75 meters, oriented to grid north. Vegetation across the site is characterized as savannah, predominantly covered in grass with sparse hardwoods. Surface visibility across the site is fair (26-50 percent). However, investigators observed an earthen push pile with brick and mortar interspersed near a stand of trees in the central portion of the site. Two consecutive negative shovel tests, wetlands, and a modern collection pond form the site boundaries.

We excavated 29 shovel tests at 15-meter intervals in and around 38BK2552; four of these shovel

tests produced artifacts. Shovel tests consistently revealed a dark grayish brown (10YR4/2) fine sand A1 horizon 0-10 cm bs, underlain by a yellowish brown (10YR5/6) fine sand B21 horizon 10-40 cm bs, and a brownish yellow (10YR6/6) to yellow (10YR7/6) fine sand B22/23 horizon 40-80 cm below surface (bs). We recovered artifacts from the A1 and B22 soil horizons, 0-50 cm bs. This suggests that the archaeological deposits within the site have been affected by processes related to soil development and possibly by plowing associated with agricultural activities during the twentieth century.

We recovered two artifacts from 38BK2552 as well as 100 grams of brick and 125 grams of mortar. One of the artifacts is an Early/Middle Woodland Deptford Check Stamped sherd and the other is a clear bottle glass fragment; both recovered from Shovel Test 2.1.

The Early/Middle Woodland Deptford Check Stamped sherd indicates minor Pre-Contact activities at 38BK2552. It is likely this artifact represents a seasonal resource extraction encampment. The clear glass bottle fragment and brick and mortar recovered from 38BK2552 likely indicate late nineteenth-early-twentieth century activities in the site area. Historic maps indicate several historic roads and structures in the site area (Latimer et al. 1916; USACE 1918). However, the site area is heavily disturbed, possibly related to land clearing activities and the construction of the collection pond. Neither component can be distinguished in vertical soil horizons at 38BK2552.

Archaeologists assessed 38BK2552 with respect to Criteria A-D (see Sections 2.5 and 2.6). Site 38BK2552 produced artifacts associated with an Early/Middle Woodland Deptford camp site and a possible late nineteenth-/early twentieth-century homesite. Neither component can be distinguished in vertical soil horizons across 38BK2552. Site 38BK2552 appears disturbed by modern construction activities. Both components identified at 38BK2552 are common throughout Berkeley County and the region. These factors suggest that additional investigation of 38BK2552 cannot provide important information about Early/Middle Woodland and the late nineteenth/early twentieth century use of the site or region beyond that recovered to date. We recommend 38BK2552 not eligible for the NRHP.

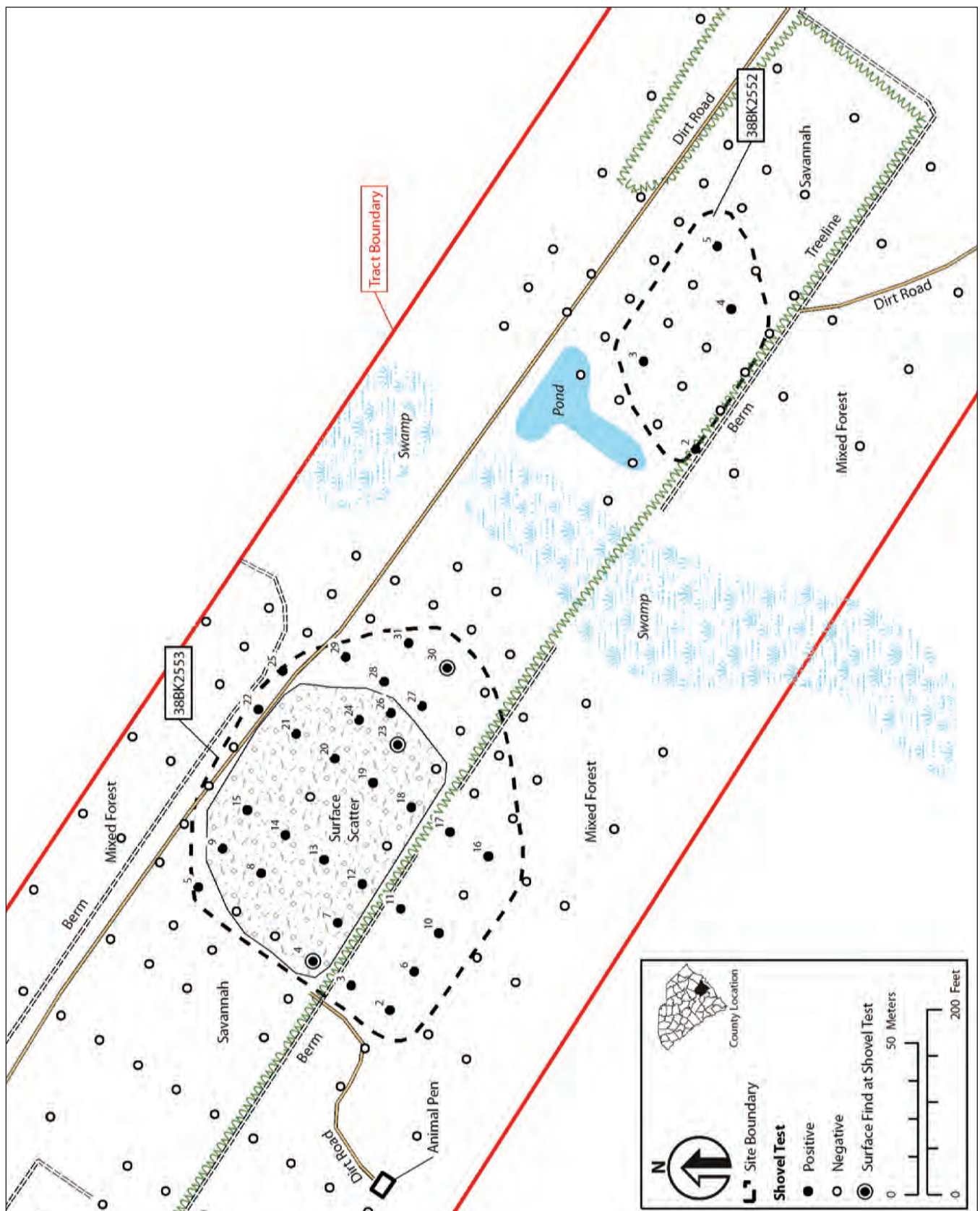


Figure 4.1 Plan of Sites 38BK2552 and 38BK2553.



Figure 4.2 Views of 38BK2552: push pile with brick and mortar looking grid east (top); typical vegetation looking grid east (bottom).

4.1.2 Site 38BK2553

Cultural Affiliation – Middle/Late Woodland; mid-nineteenth-early-twentieth century

Site Type – ceramic and lithic scatter; domestic scatter

Site Dimensions – 105 meters north-south (n/s) by 90 meters east-west (e/w)

Soil Type – Cainhoy fine sand (Long 1980:12)

Elevation – 10.7 meters amsl

Nearest Water Source – Unnamed swamp; tributary of Yellow House Creek

Present Vegetation – Savannah and mixed forest

NRHP Recommendation – Not eligible

Management Recommendations – No further management

Site 38BK2553 is a surface/subsurface scatter of Pre-Contact ceramic and lithic artifacts and Post-Contact domestic artifacts located in the central portion of the project tract. Site 38BK2553 is likely associated with 38BK2552, another multi-component archaeological site located across a wetland to the east (see Figures 1.1 and 4.1). Figure 4.3 provides views of 38BK2553. Site 38BK2553 measures 105-by-90 meters, oriented to grid north. Vegetation across the site is characterized as savannah, predominantly covered in grass with sparse hardwoods. Surface visibility across the site is poor (1-25 percent) in the wooded areas and good (26-50 percent) in the open savannahs. Investigators observed a broad and diffuse artifact scatter in the northern portion of 38BK2553 and a discrete, approximately three-meter-diameter shell scatter in the central portion of the site. Two consecutive negative shovel tests and wetlands form the site boundaries.

We excavated 76 shovel tests at 7.5- and 15-m intervals in and around 38BK2547; 27 of these shovel tests produced artifacts. Shovel tests consistently revealed a dark grayish brown (10YR4/2) fine sand A1 horizon 0-30 cm bs, underlain by a yellowish brown (10YR5/6) fine sand B21 horizon 30-50 cm bs, and a brownish yellow (10YR6/6) to yellow (10YR7/6) fine sand B22/23 horizon 50-100 cm bs. We recovered artifacts from the A1, B22, and B23 soil horizons, at an average depth of 0-40 cm bs. Two shovel tests (Shovel Tests 19 and 24) produced Pre-Contact artifacts to a maximum depth of 80 cm bs. Investigators excavated Shovel Test 26 into the shell scatter, exposing a matrix of oyster and peri-

winkle shell, along with small amounts of bone and charcoal, as well as Pre-Contact and Post-Contact artifacts, to a depth of 25 cm bs. Across the rest of 38BK2553, most of the Pre-Contact artifacts and all of the Post-Contact artifacts were recovered 0-40 cm bs. This suggests that the archaeological deposits within the site have been affected by processes related to soil development and possibly by plowing associated with agricultural activities during the twentieth century.

We recovered 119 artifacts from 38BK2553, as well as 728.8 grams of brick, 4.5 grams of unidentifiable iron fragments, 2486.6 grams of oyster shell, and 126.8 grams of periwinkle shell. Table 4.1 summarizes the artifacts recovered from 38BK2553. Artifacts include 31 Pre-Contact artifacts, and 88 Post-Contact artifacts. Temporally diagnostic Pre-Contact artifacts include eight Wando Simple Stamped or Smoothed sherds, recovered from four shovel tests (Shovel Tests 20, 22, 25, and 26). Wando Simple Stamped and Smoothed sherds indicate a Middle/Late Woodland occupation. It is likely that the Pre-Contact occupation(s) at 38BK2553 are a palimpsest of temporary hunting camps, occupied on a seasonal basis, most likely during the Middle/Late Woodland subperiod.

The 88 Post-Contact artifacts and brick represent four distinct artifact classes (architectural, clothing/personal, hardware, kitchen, and tobacco). Kitchen artifacts (n=79) dominate the artifact assemblage, with high number of bottle, container, and table glass (n=67). Temporally diagnostic Post-Contact artifacts include cut nails (ca. 1805-present), wire nails (ca. 1850-present), milkglass (ca. 1869-present), whiteware (ca. 1830-present), and one clear German cologne bottle, embossed *E.W. Hoyt & Co., Lowell, Mass USA* (ca. 1900-1940). These artifacts indicate a mid-nineteenth to early twentieth-century occupation at 38BK2553. No maps or plats prior to the twentieth century indicate any buildings or structures in the vicinity of 38BK2553. However, Latimer et al. (1916) and the USACE (1918) *Meldrim* quadrangle show a network of roads and several buildings on the west site of a drainage in close proximity to 38BK2553. It is likely that 38BK2553 represents one or more buildings associated the Bennett family tenure at the Cabin Creek Tract (see Chapter 3).



Figure 4.3 Views of 38BK2553: wooded portion of 38BK2553 looking grid west along old road (top); savannah portion of 38BK2553 showing shell midden in foreground and grand oak in background looking grid east (bottom).

Table 4.1 Artifacts Recovered from 38BK2553.

Era	Artifact Class	Artifact Description	Count	Weight
Pre-Contact	Ceramic	residual sherd	23	48.6
		Wando Smoothed sherd	2	18.6
		Wando Simple Stamped sherd	6	54.3
	Lithic	chert non-cortical 3/4" flake	1	0.9
Indeterminate	Faunal	oyster		2486.6
		periwinkle		126.8
		unidentifiable bird bone fragment	1	0.7
Post-Contact	Activities	UID iron fragment	2	4.5
	Architectural	brick		605.2
		mortar		18.3
		unidentifiable square nail	1	3.3
		wire nail	2	6.7
	Clothing	white metal buckle	1	1.1
		porcelain button	1	0.2
	Kitchen	amber bottle glass fragment	1	1.0
		amethyst container fragment	13	98.7
		aqua bottle glass fragment	16	113.5
		clear glass container fragment	16	57
		clear glass bottle*	1	23.5
		clear (flushed orange exterior) tableglass fragments	17	85.2
		dark olive green bottle glass fragment	1	12.3
		green glass container fragment	1	2.3
		milkglass container base	1	84.9
		milkglass container fragment	2	2.6
		undecorated porcelain sherd	1	0.8
		undecorated whiteware sherd	7	35.8
		Stoneware, blue underglazed salt glazed	1	41.0
	Tobacco	kaolin pipe stem fragment	1	1.5
Total			119	3935.9

*"E.W. Hoyt & Co., Lowell, Mass USA", German cologne bottle, ca. 1900-1940

Archaeologists assessed 38BK2553 with respect to Criteria A-D (see Sections 2.5 and 2.6). Site 38BK2553 is the largest site identified during the current investigation and produced artifacts associated with a Middle/Late Woodland Wilmington occupation, a late seventeenth to eighteenth century occupation, and a mid-nineteenth to mid-twentieth century occupation. These artifacts are scattered diffusely across the site and no discrete activity areas can be ascertained. The shell midden located in the center of site appears to contain a matrix of not only oyster and periwinkle shell, bone, and charcoal, but also Pre-Contact and Post-Contact artifacts. The two shovel tests that produced artifacts below the A1 ho-

rizon produced only small amounts of Pre-Contact artifacts. Furthermore, the highly acidic, excessively drained nature of Cainhoy fine sand soils found at the site has eroded artifacts and leached away cultural features that may have once been present. Therefore, it is unlikely that additional investigation of 38BK2553 will produce additional information about Middle/Late Woodland subperiod or the mid-nineteenth to early twentieth century use of the site or region beyond that recovered to date. We recommend 38BK2553 not eligible for the NRHP.

4.1.3 Site 38BK2554

Cultural Affiliation – *Unknown Pre-Contact; nineteenth- twentieth century*

Site Type – *ceramic scatter; architectural scatter*

Site Dimensions – *22.5 meters n/s by 15 meters e/w*

Soil Type – *Cainhoy fine sand (Long 1980:12)*

Elevation – *6.1 meters amsl*

Nearest Water Source – *Unnamed swamp tributary of Yellow House Creek*

Present Vegetation – *Mixed forest*

NRHP Recommendation – *Not eligible*

Management Recommendations – *No further management*

Site 38BK2554 is a subsurface scatter of Pre-Contact ceramic artifacts and a Post-Contact architectural artifact located in the western portion of the project tract. Site 38BK2554 is likely associated with an isolated artifact occurrence (Isolate 1), located 60 meters grid north (Figures 1.1 and 4.4). Site 38BK2554 is located on a sand ridge and overlooks hardwood swamp adjacent to Yellow House Creek to the west. Site 38BK2554 measures 22.5 by 15 meters, oriented to grid north. Vegetation across 38BK2554 consists of mixed hardwoods and pines with no surface visibility. Figure 4.5 provides views of 38BK2554 (top) and the Isolate 1 (bottom). Two consecutive negative shovel tests at 15-meter intervals and the project tract boundary form the site boundary.

We excavated 13 shovel tests at 7.5- and 15-meter intervals in and around 38BK2554; two of these shovel tests produced artifacts. Shovel tests consistently revealed a dark grayish brown (10YR4/2) fine sand A1 horizon 0-35 cm bs, underlain by a yellowish brown (10YR5/6) fine sand B21 horizon 35-55 cm bs, and a brownish yellow (10YR6/6) to yellow (10YR7/6) fine sand B22/23 horizon 55-80 cm bs. We recovered artifacts from the A1 soil horizon, to a maximum depth of 35 cm bs. This suggests that the archaeological deposits within the site have been affected by processes related to soil development and possibly by plowing associated with agricultural activities during the twentieth century.

We recovered three artifacts from 38BK2554. These artifacts include two residual sherds and one unidentifiable nail. Shovel Tests 2.1 and 3.1 produced one residual sherd each; Shovel Test 3.1 produced the cut nail. The two residual sherds are

likely Pre-Contact but cannot be associated with a particular cultural subperiod. This component of 38BK2554 is likely the remnants of a temporally occupied, resource procurement camp, similar to those identified at Sites 38BK2552 and 38BK2553. The Post-Contact artifact could be associated with any kind of historic activity during the nineteenth and twentieth century. No historic maps or plats show structures in the vicinity of 38BK2554.

Archaeologists assessed 38BK2554 with respect to Criteria A-D (see Sections 2.5 and 2.6). Site 38BK2554 produced the minimum number of artifacts necessary to be considered an archaeological site and includes two components dating to an unknown Pre-Contact occupation and a nineteenth-twentieth century occupation. These artifacts cannot be distinguished horizontally or vertically across 38BK2554. Therefore, it is unlikely that additional investigation of 38BK2554 will produce important information about the period of use and possible functions presented above. We recommend 38BK2554 not eligible for the NRHP.

4.1.4 Isolate 1

Isolate 1 is a subsurface artifact scatter located in a wooded area in the western portion of the project tract (see Figures 1.1 and 4.4). Isolate 1 is composed of two artifacts, including one Pre-Contact residual sherd (recovered from Shovel Test 2.1) and one Post-Contact unidentifiable wire nail (recovered from Shovel Test 3.1). Investigators excavated 14 shovel tests at 15-meters in and around Isolate 1; both artifacts were recovered 0-30 cm bs. An earthen berm extends across Isolate 1 between Shovel Tests 2.1 and 3.1 (see Figure 4.5). Isolate 1 is not eligible for the NRHP (COSCAPA et al. 2013).

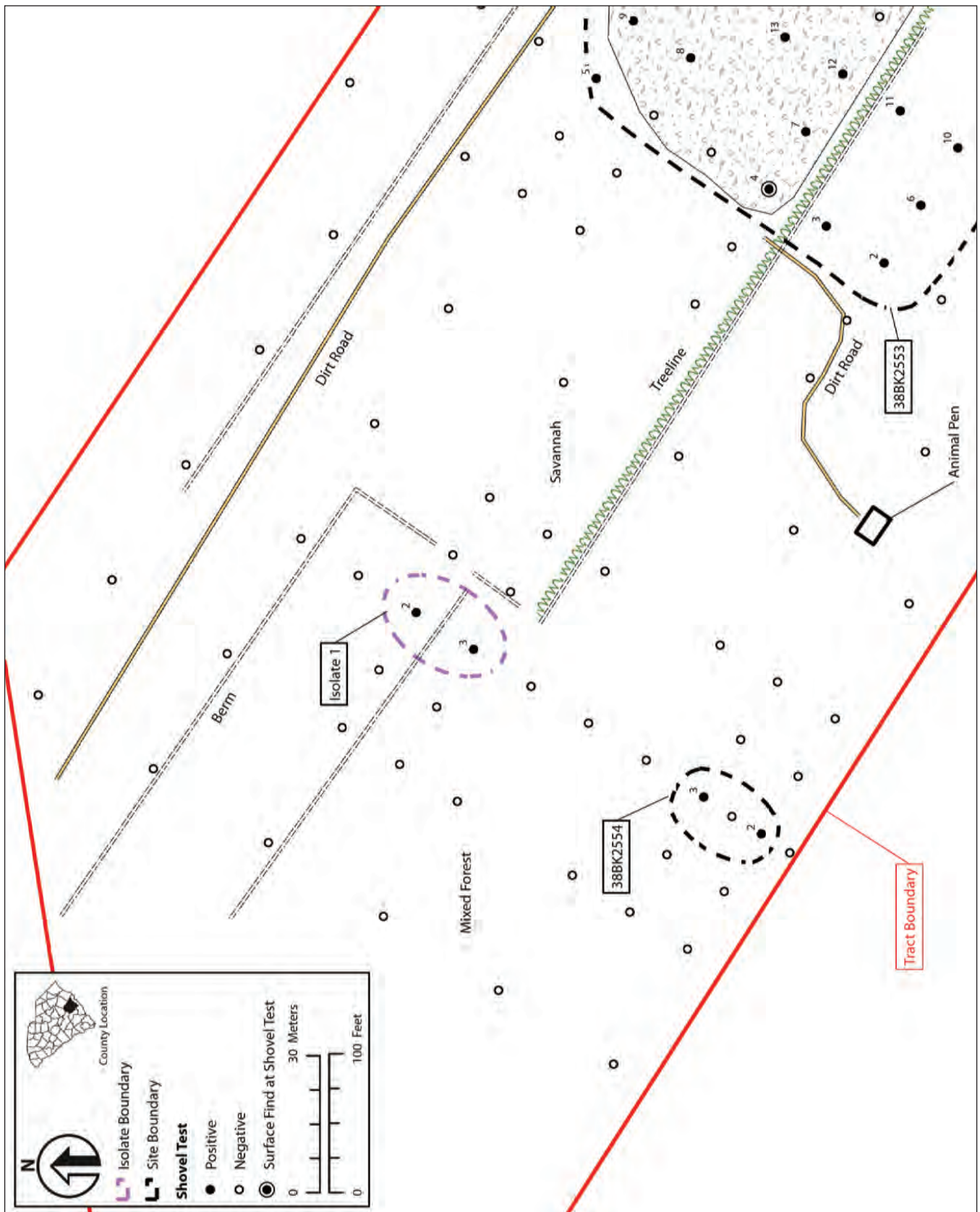


Figure 4.4 Plan of 38BK2554 and Isolate 1.



Figure 4.5 View of 38BK2554 looking grid north (top) and of Isolate 1 looking grid north, showing the berm (bottom).

4.2 Project Summary and Management Recommendations

From September 2-3, 2014, Brockington conducted an archaeological survey of the 32-acre APE of the Cabin Creek Tract. There are no survey-eligible structures within the project tract; therefore, an architectural survey was not necessary. Brockington identified three new archaeological sites (Sites 38BK2552-38BK2554) and one isolated artifact occurrence (Isolate 1). Site 38BK2552 is a surface/subsurface scatter of Pre-Contact ceramic artifacts dating to the Middle/Late Woodland subperiod and Post-Contact architectural and kitchen artifacts dating to the late nineteenth to early twentieth century, and. Site 38BK2553 is a surface/subsurface scatter of Pre-Contact ceramic and lithic scatter dating to the Middle/Late Woodland subperiod and Post-Contact domestic artifacts dating to the mid-nineteenth to early twentieth centuries. Site 38BK2554 is a subsurface scatter of Pre-Contact ceramic artifacts dating to an unknown Pre-Contact subperiod and a Post-Contact architectural artifact dating to the nineteenth to twentieth centuries. Although sites 38BK2552-38BK2554 vary greatly in size, none have the potential to contribute meaningful new data to the current understanding of any of the individual components represented. Therefore, we recommend Sites 38BK2552-38BK2554 and Isolate 1 not eligible for the NRHP. None of these cultural resources require additional management. Development of the project tract will not affect any historic properties.

4

LETTERS OF COORDINATION



PO Box B
Charleston, SC 29402
103 St. Philip Street (29403)

(843) 727-6800
www.charlestonwater.com

Board of Commissioners

Thomas B. Pritchard, Chairman
David E. Rivers, Vice Chairman
William E. Koopman, Jr., Commissioner
Mayor Joseph P. Riley, Jr. (Ex-Officio)
Councilmember Dean C. Riegel (Ex-Officio)

Officers

Kin Hill, P.E., Chief Executive Officer
Dorothy Harrison, Chief Administrative Officer
Wesley Ropp, CMA, Chief Financial Officer
Andy Fairey, Chief Operating Officer
Mark Cline, P.E., Capital Projects Officer

8/28/2014

Mr. Chris Donato
Sitecast, LLC
1250 Fairmont Avenue
Mt. Pleasant, SC 29464

Re: Water Availability to TMS #267-00-00-004, 005, 010, 049 - 057, 069 to serve 180 single family residential units and 10,000 sf of commercial units

Dear Mr. Donato,

This letter is to certify our willingness and ability to provide water to the above referenced site in Charleston County, South Carolina. We currently have a 30" water main in the right-of-way of Clements Ferry Rd. that your property may be served from. Please be advised that it may be necessary to loop the proposed mains so that sufficient fire flow demands are met. This review does not supplant any other review as required by governing authorities and municipalities. It will of course be a developer responsibility to ensure there are adequate pressures and quantities on this line to serve this site with domestic water/fire flow and not negatively impact the existing developments. Please be advised any extensions or modification to the infrastructure as well as any additional fire protection will be a developer expense. All fees and costs associated with providing water service to this site will be a developer expense. This letter does not reserve capacity in the Charleston Water System infrastructure and it is incumbent upon the developer or his agent to confirm the availability herein granted past 12 months of this correspondence.

The Charleston Water System certifies the availability of service only insofar as its rights allow. Should access to our existing main/mains be denied by appropriate governing authorities, the Charleston Water System will have no other option than to deny service.

This letter is not to be construed as a letter of acceptance for operation and maintenance from the Department of Health and Environmental Control.

If there are any questions pertaining to this letter, please do not hesitate to call on me at (843) 727-6870.

Sincerely,

A handwritten signature in blue ink that reads "Cheryl Boyle".

Cheryl L. Boyle
Engineering Assistant
Charleston Water System

cc: file



PO Box B
Charleston, SC 29402
103 St. Philip Street (29403)

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www.charlestonwater.com

Board of Commissioners
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Andy Fairey, Chief Operating Officer
Mark Cline, P.E., Capital Projects Officer

8/28/2014

Mr. Chris Donato
Sitecast, LLC
1250 Fairmont Avenue
Mt. Pleasant, SC 29464

Re: Sewer Availability to TMS #267-00-00-004, 005, 010, 049 - 057, 069 to serve 180 single family residential units and 10,000 sf of ocmmercial units

Dear Mr. Donato,

This letter is to certify our willingness and ability to provide wastewater collection service to the above referenced site in Charleston County, South Carolina. Wastewater collection service to this site may be made available via the existing 24" force main in the right of way of Clements Ferry Rd. Any subdividing of the property subsequent to this correspondence will require a review process of the civil engineering plans to ensure compliance with the Charleston Water System minimum standards. Please be advised that it is the policy of Charleston Water System that the proposed gravity sewer mains be designed and constructed at a depth that will allow future development to tie into the gravity mains. Any extensions and/or modifications to the infrastructure to serve this site will be a developer expense. Please be advised that wastewater impact fees, wastewater tap fees, change-in-use fees, and/or cost to extend fees will be due prior to connection of any Charleston Water System's sewer system. This letter does not reserve capacity in the Charleston Water System infrastructure and it is incumbent upon the developer or his agent to confirm the availability herein granted past 12 months of this correspondence.

The Charleston Water System certifies the availability of service only insofar as its rights allow. Should access to our existing sewer main/mains be denied by appropriate governing authorities, the Charleston Water System will have no other option than to deny service.

This letter is not to be construed as a letter of acceptance for operation and maintenance from the Department of Health and Environmental Control.

If there are any questions pertaining to this letter, please do not hesitate to call on me at (843) 727-6870.

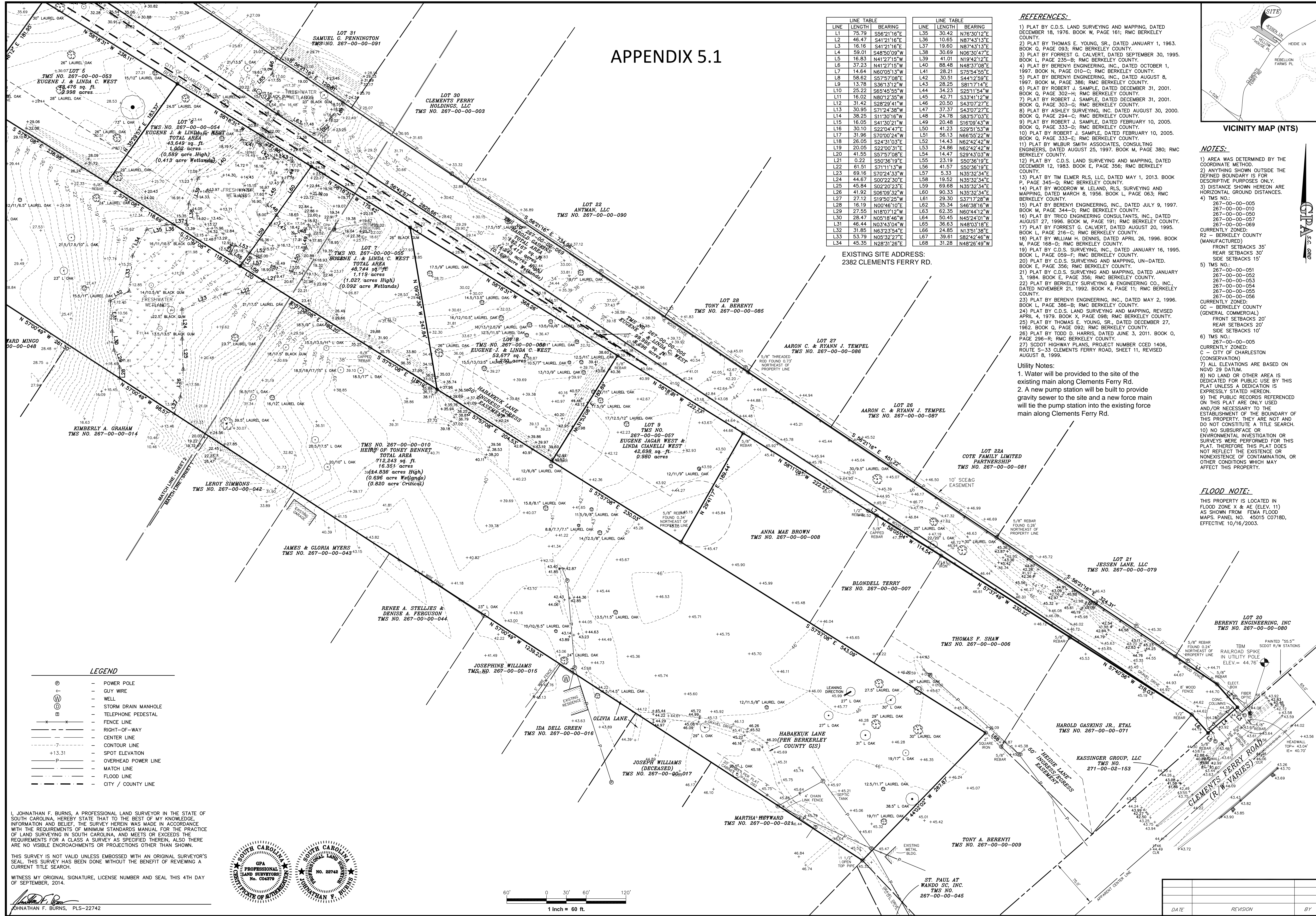
Sincerely,

A handwritten signature in blue ink that reads "Cheryl Boyle". The signature is written in a cursive, flowing style.

Cheryl L. Boyle
Engineering Assistant
Charleston Water System

cc: file

APPENDIX



GPA
PROFESSIONAL
LAND SURVEYORS

237 OLD SUMMERVILLE RD
UNIT H
SUMMERVILLE SC 29483
OFFICE (843) 285-2424

GPA OF CHARLOTTE, INC.
605 PHILIP DAVIS DRIVE
CHARLOTTE NC 28236-6916
OFFICE (704) 335-8600

GPA OF RALEIGH, INC.
333 WADE AVENUE
RALEIGH NC 27605

CHARLOTTE NC 29492
OFFICE (843) 971-9099
FAX (843) 971-9992

"Integrity Without Boundaries"
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SCALE
1"=60'

FLD. BK. PG.

JOB NO.
145090

DATE
09/04/2014

DRAWN BY
SWM

CHECKED BY
JFB

SHOWING TMS NO.: 267-00-00-004, 005, 010, 050 - 057 & 069

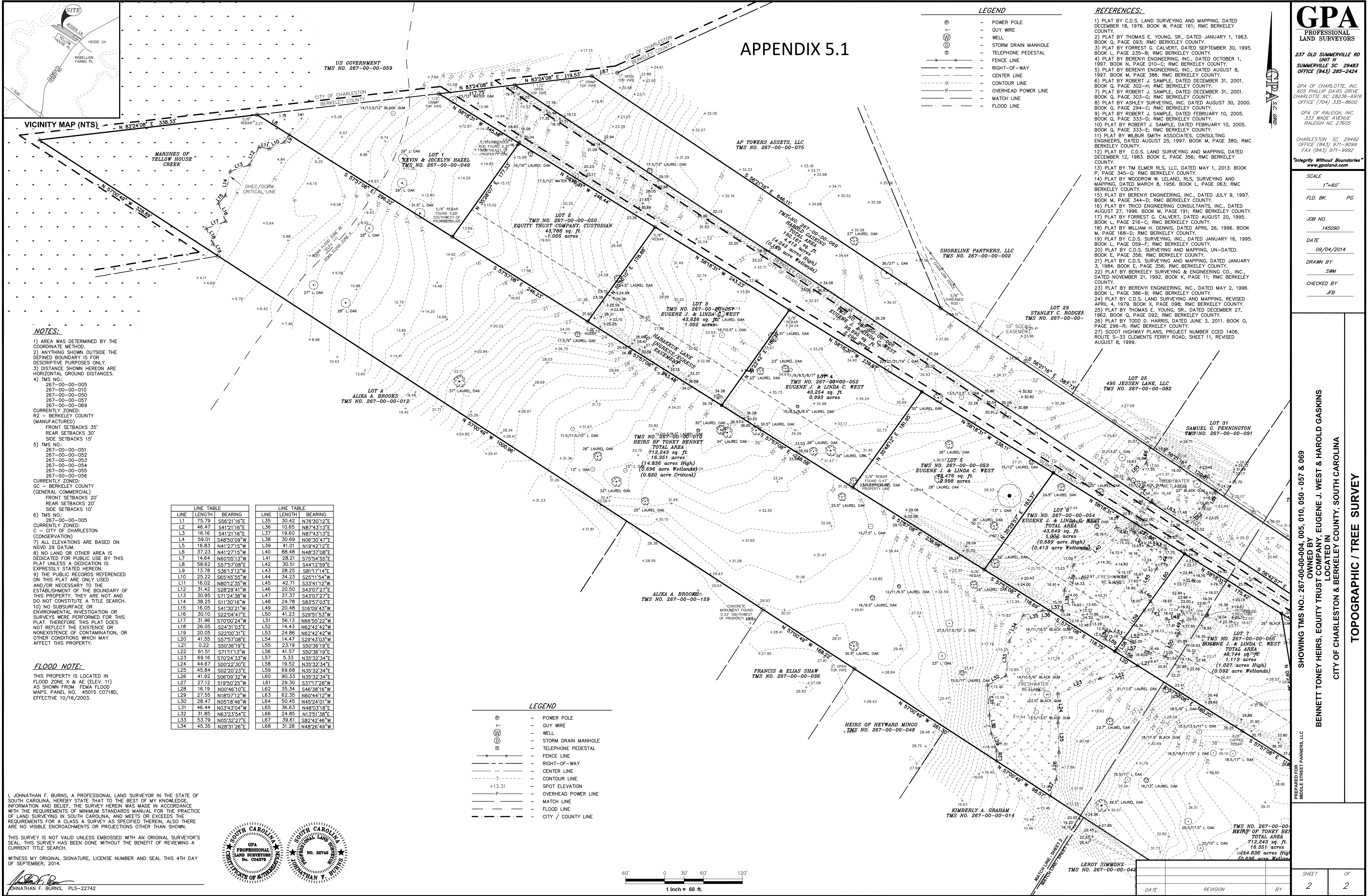
OWNED BY
BENNETT TONEY HEIRS, EQUITY TRUST COMPANY, EUGENE J. WEST & HAROLD GASKINS

LOCATED IN
CITY OF CHARLESTON & BERKELEY COUNTY, SOUTH CAROLINA

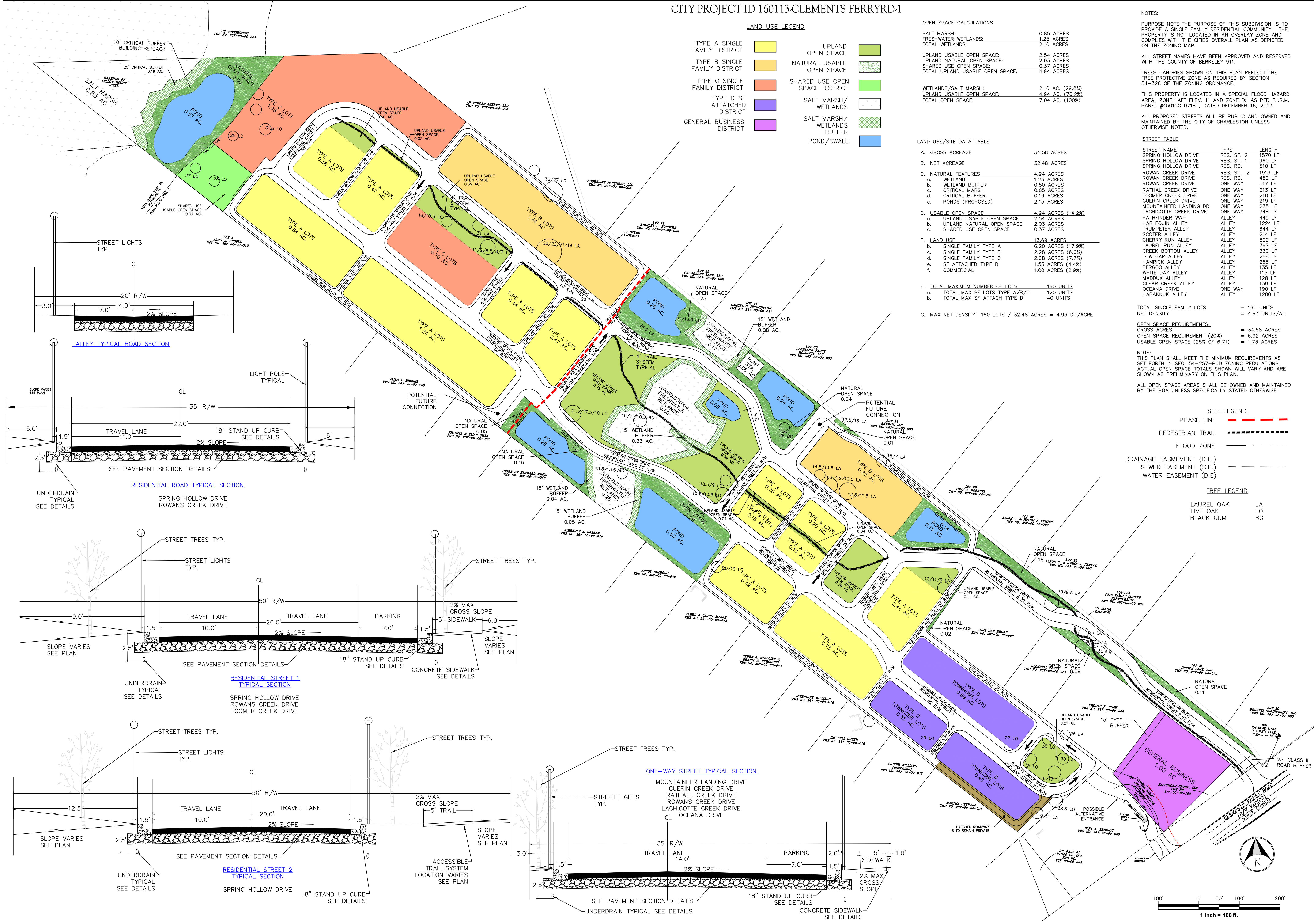
PREPARED FOR
MIDDLE STREET PARTNERS, LLC

SHEET
1

OF
2



CITY PROJECT ID 160113-CLEMENTS FERRYRD-1



NOTES:

PURPOSE NOTE: THE PURPOSE OF THIS SUBDIVISION IS TO PROVIDE A SINGLE FAMILY RESIDENTIAL COMMUNITY. THE PROPERTY IS NOT LOCATED IN AN OVERLAY ZONE AND CONFORMS WITH THE CITIES OVERALL PLAN AS DEPICTED ON THE ZONING MAP.

ALL STREET NAMES HAVE BEEN APPROVED AND RESERVED WITH THE COUNTY OF BERKELEY 911.

TREES CANOPIES SHOWN ON THIS PLAN REFLECT THE TREE PROTECTIVE ZONE AS REQUIRED BY SECTION 54-328 OF THE ZONING ORDINANCE.

THIS PROPERTY IS LOCATED IN A SPECIAL FLOOD HAZARD AREA; ZONE "AE" ELEV. 11 AND ZONE "X" AS PER F.I.R.M. PANEL #405015C 07/80, DATED DECEMBER 16, 2003

ALL PROPOSED STREETS WILL BE PUBLIC AND OWNED AND MAINTAINED BY THE CITY OF CHARLESTON UNLESS OTHERWISE NOTED.

<u>OPEN SPACE CALCULATIONS</u>	
SALT MARSH:	0.85 ACRES
FRESHWATER WETLANDS:	1.25 ACRES
TOTAL WETLANDS:	2.10 ACRES
UPLAND USABLE OPEN SPACE:	2.54 ACRES
NATURAL UPLAND OPEN SPACE:	2.03 ACRES
SHARED USE OPEN SPACE:	0.37 ACRES
TOTAL UPLAND USABLE OPEN SPACE:	4.94 ACRES

LAND USE/SITE DATA TABLE		
A.	GROSS ACREAGE	34.58 ACRES
B.	NET ACREAGE	32.48 ACRES
C.	<u>NATURAL FEATURES</u>	<u>4.94 ACRES</u>
a.	WETLAND	1.25 ACRES
b.	WETLAND BUFFER	0.50 ACRES
c.	CRITICAL MARSH	0.85 ACRES
d.	CRITICAL BUFFER	0.19 ACRES
e.	PONDS (PROPOSED)	2.15 ACRES
D.	<u>USABLE OPEN SPACE</u>	<u>4.95 ACRES (14.2%)</u>
a.	UPLAND USABLE OPEN SPACE	2.54 ACRES
b.	UPLAND NATURAL OPEN SPACE	2.03 ACRES
c.	SHARED USE OPEN SPACE	0.37 ACRES
E.	<u>LAND USE</u>	<u>13.69 ACRES</u>
a.	SINGLE FAMILY TYPE A	6.20 ACRES (17.9%)
b.	SINGLE FAMILY TYPE B	2.28 ACRES (6.6%)
c.	SINGLE FAMILY TYPE C	2.68 ACRES (7.7%)
d.	SF ATTACHED TYPE D	1.53 ACRES (4.4%)
f.	COMMERCIAL	1.00 ACRES (2.9%)
F.	<u>TOTAL MAXIMUM NUMBER OF LOTS</u>	<u>160 UNITS</u>
a.	TOTAL MAX SF LOTS TYPE A/B/C	120 UNITS
b.	TOTAL MAX SF ATTACH TYPE D	40 UNITS
G.	MAX NET DENSITY 160 LOTS / 32.48 ACRES = 4.93 DU/A	

STREET NAME	TYPE	LENGTH
SPRING HOLLOW DRIVE	RES. ST. 2	1570 LF
SPRING HOLLOW DRIVE	RES. ST. 1	860 LF
SPRING HOLLOW DRIVE	RES. ST.	510 LF
ROWAN CREEK DRIVE	RES. ST. 2	1919 LF
ROWAN CREEK DRIVE	ONE WAY	450 LF
ROWAN CREEK DRIVE	ONE WAY	577 LF
RATHAL CREEK DRIVE	ONE WAY	213 LF
TOOMER CREEK DRIVE	ONE WAY	210 LF
QUERN CREEK DRIVE	ONE WAY	219 LF
MOUNTAINEER LANDING DR.	ONE WAY	275 LF
LACHOITE CREEK DRIVE	ONE WAY	748 LF
WATHAM DRIVE	ALLEY	448 LF
HARLEQUIN ALLEY	ALLEY	1224 LF
TRUMPETER ALLEY	ALLEY	644 LF
SCOTTER ALLEY	ALLEY	214 LF
CHERRY RUN ALLEY	ALLEY	802 LF
LAUREL RUN ALLEY	ALLEY	767 LF
BERKEE BO ALLEY	ALLEY	330 LF
LOW GAP ALLEY	ALLEY	268 LF
HAMROCK ALLEY	ALLEY	255 LF
BERGROD ALLEY	ALLEY	135 LF
WHITE DAY ALLEY	ALLEY	115 LF
MAUDUX ALLEY	ALLEY	128 LF
CLARE CREEK ALLEY	ONE WAY	139 LF
OCEANA DRIVE	ONE WAY	190 LF
HABAKKUK ALLEY	ALLEY	1200 LF




TOTAL SINGLE FAMILY LOTS = 160 UNITS
NET DENSITY = 4.93 UNITS/AC

OPEN SPACE REQUIREMENTS:
GROSS ACRES = 34.58 ACRES
OPEN SPACE REQUIREMENT (20%) = 6.92 ACRES
USABLE OPEN SPACE (25% OF 6.71) = 1.73 ACRES

NOTE:
THIS PLAN SHALL MEET THE MINIMUM REQUIREMENTS AS
SET FORTH IN SEC. 54-257-PUD ZONING REGULATIONS.
ACTUAL OPEN SPACE TOTALS SHOWN WILL VARY AND ARE
SHOWN AS PRELIMINARY ON THIS PLAN.

ALL OPEN SPACE AREAS SHALL BE OWNED AND MAINTAINED
BY THE HOA UNLESS SPECIFICALLY STATED OTHERWISE.

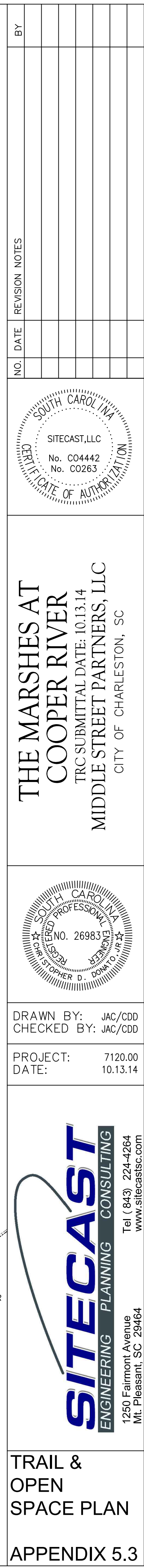
SITE LEGEND

PHASE LINE	
PEDESTRIAN TRAIL	
FLOOD ZONE	
DRAINAGE EASEMENT (D.E.)	
SEWER EASEMENT (S.E.)	
WATER EASEMENT (D.E.)	

TREE LEGEND

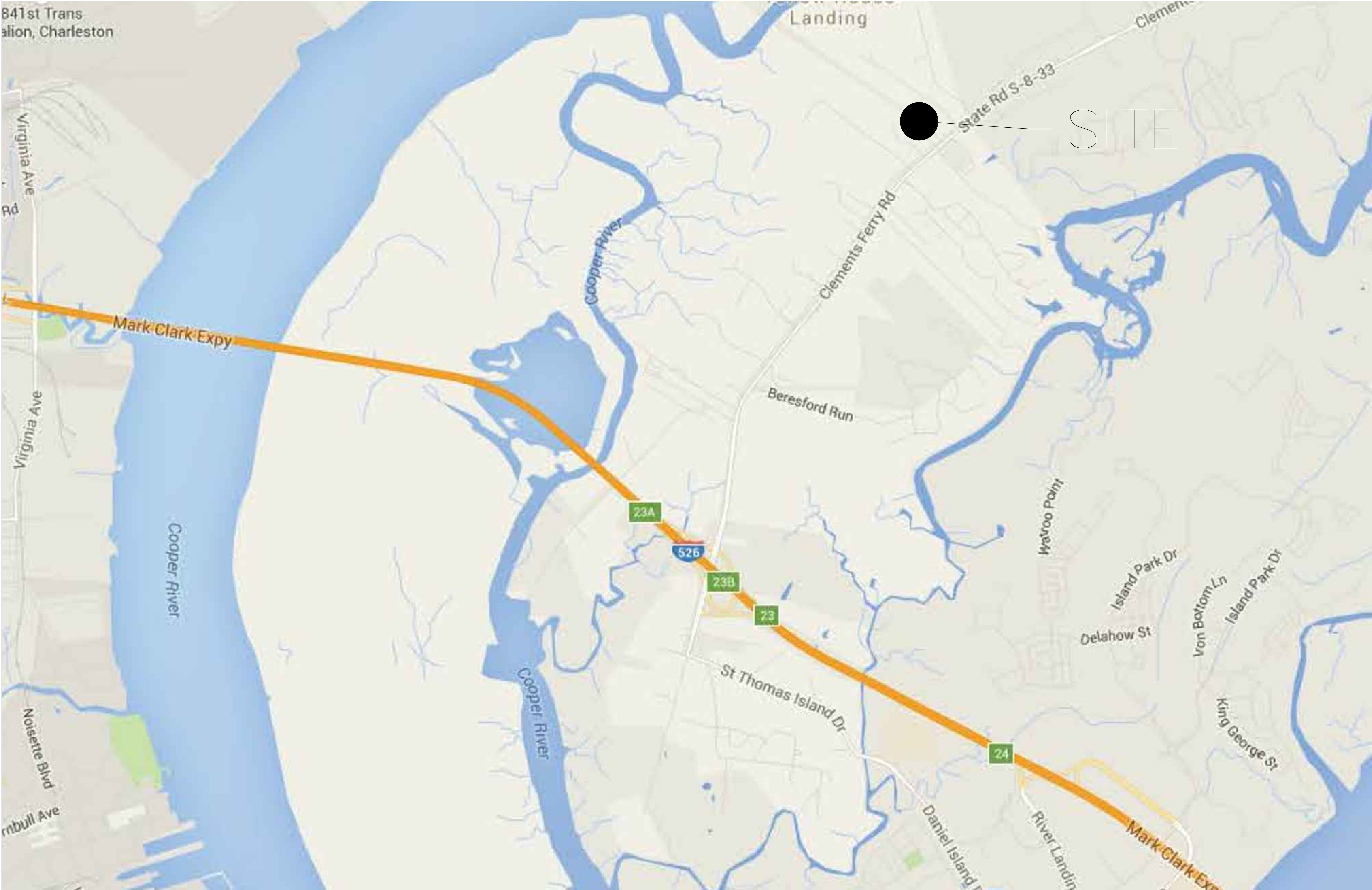
LAUREL OAK	LA
LIVE OAK	LO
BLACK GUM	BG

[illegible]



THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION.

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NO.		DATE	REVISION NOTES	BY

THE MARSHES AT COOPER RIVER
TRC SUBMITTAL DATE: 10.13.14
MIDDLE STREET PARTNERS, LLC
CITY OF CHARLESTON, SC

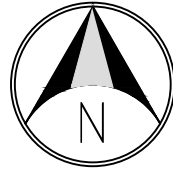
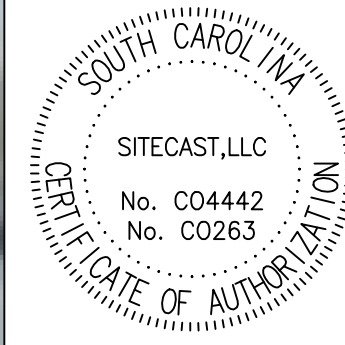
DRAWN BY: JAC/CDD
CHECKED BY: JAC/CDD

PROJECT: 7120.00
DATE: 10.13.14

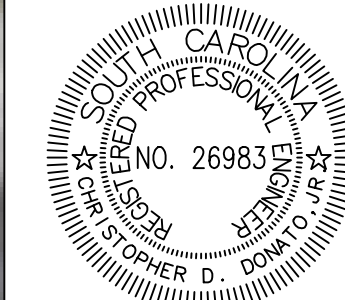
1350 Fairmont Avenue
Mt. Pleasant, SC 29464
Tel (843) 224-4264
www.sitecastsc.com

LOCATION MAP

APPENDIX 5.4

[illegible]

THE MARSHES AT
COOPER RIVER
TRC SUBMITTAL DATE: 10.13.14
MIDDLE STREET PARTNERS, LLC
CITY OF CHARLESTON, SC



DRAWN BY: JAC/CDD
CHECKED BY: JAC/CDD

PROJECT:	7120.00
DATE:	10.13.14



AERIAL
PHOTOGRAPH

APPENDIX 5.5

M2.)



Refutation
Number _____

AN ORDINANCE

TO AMEND SECTION 54-943(c) OF THE CODE OF THE CITY OF CHARLESTON (ZONING ORDINANCE) TO MODIFY THE VOTE REQUIRED OF CITY COUNCIL IN THE EVENT A MATTER IS DISAPPROVED BY THE PLANNING COMMISSION OR WHEN A PETITION IN OPPOSITION TO A MATTER SIGNED BY OWNERS OF TWENTY PERCENT OF THE AREA OF LOTS SUBJECT TO THE MATTER, OR OF THOSE IMMEDIATELY ADJACENT ON THE SIDES AND REAR OR DIRECTLY OPPOSITE THERETO IS PRESENTED TO COUNCIL TO SIXTY (60%) PERCENT OF THE MEMBERS OF COUNCIL PRESENT AND VOTING.

BE IT ORDAINED BY THE MAYOR AND COUNCILMEMBERS OF CHARLESTON, IN CITY COUNCIL ASSEMBLED:

Section 1. Section 54-943(c) of the Code of the City of Charleston (Zoning Ordinance) is hereby amended by changing the number of votes required of City Council in the event an amendment, supplement or change is disapproved by the Planning Commission or when a petition in opposition to a matter signed by owners of twenty percent of the area of lots affected by a matter, or of those immediately adjacent in the rear or sides thereof, or of those directly opposite thereto to sixty (60%) of the members of council present and voting, so that hereafter, Sec. 54-943 (c) of the Zoning Ordinance shall read as follows (changes in strike through and **bold**):

c. In case the proposed amendment, supplement, or change be disapproved by the Planning Commission, or a protest be presented duly signed and acknowledged by the owners of twenty percent or more either of the areas of the lots included in such change, or of those immediately adjacent in the rear and on the side or sides thereof or of those directly opposite thereto, such amendment, supplement or change shall not become effective except by a favorable vote of ~~three-fourths (3/4) of all members of the City Council~~ **sixty (60%) of the members of City Council present and voting.**

Section 2. This Ordinance shall become effective upon ratification.

Ratified in City Council this ____ day of
_____ in the Year of Our Lord, 2016,
and in the ____th Year of the Independence of
the United States of America

John J. Tecklenburg, Mayor

ATTEST:

Clerk of Council



Ratification
Number _____

AN ORDINANCE

TO AMEND CHAPTER 54 OF THE CODE OF THE CITY OF CHARLESTON (ZONING ORDINANCE) BY AMENDING SECTION 54-110 TO CHANGE ZONING REGULATIONS FOR NON-CONFORMING TWO-FAMILY AND MULTI-FAMILY DWELLING USES TO REQUIRE ANY INCREASE IN THE NUMBER OF BEDROOMS TO BE REVIEWED BY THE BOARD OF ZONING APPEALS – ZONING AND AMENDING SECTION 54-120 TO CHANGE THE DEFINITION “MULTIPLE DWELLING” TO “MULTI-FAMILY DWELLING”

Section 1. Subsection b. of Sec. 54-110, of Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) is hereby amended to read as follows (new text in **bold** and deleted text with ~~strikethrough~~):

b. The lawful use of a building or structure, existing at the time of the adoption of this chapter, or an amendment thereto, although such use does not conform to the provisions hereof, may be continued except for signs, which shall be governed by Article 4, and rental of amusement and recreational vehicles which shall be governed by section 54-223, and such use, with the exception of accommodations ~~and uses~~, bed and breakfast uses, **two-family dwelling uses and multi-family dwelling uses**, may be extended throughout the building or structure provided such extension does not displace a conforming use and provided no structural alterations are made, other than those necessary to assure the safety of the building or structure.

Section 2. Subsection f. of Sec. 54-110, of Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) is hereby amended to read as follows (new text in **bold**):

f. The non-conforming use of a building or structure cannot be physically extended to provide more area for the non-conforming use, **and the number of bedrooms in a non-conforming two-family dwelling or multi-family dwelling use cannot be increased**, unless the Board of Zoning Appeals—Zoning, after a duly advertised public hearing, finds that the extension **or increase** of the non-conforming use is: (1) limited to extending **or increasing** the non-conforming use then in existence; and (2) would not result in an unreasonable intensification of the non-conforming use. In considering the reasonableness of the intensification of the extension **or increase**, the Board shall consider the effect of the extension **or increase** on properties in the vicinity to include traffic impacts; vehicular and pedestrian safety; parking impacts; potential impacts of noise, lighting, fumes or obstruction of air flow or light on adjoining property; impacts on the aesthetic character of the environs, to include the possible need for screening. If an extension **or increase** is permitted, the Board may imposed reasonable and appropriate conditions and safeguards for the protection of the public interest and neighboring properties, including but not limited to, limitations on the days and hours during which the proposed use may be operated, and shall require, for properties located in the Old and

Historic District, that exterior alterations be approved by the Board of Architectural Review, regardless of whether said alterations are visible from a public street or thoroughfare.

Section 3. The Definition "Multiple Dwelling" in Sec. 54-120, of Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) is hereby amended to read as follows (new text in **bold** and deleted text with strikethrough):

~~Multiple~~Multi-family Dwelling. A building designed or occupied otherwise than as a one-family dwelling or a two-family dwelling. The term "~~multiple~~**multi-family** dwelling" shall be understood to include apartment houses, tenement houses, residential condominiums and similar multi-family buildings exclusive of hotels, apartment hotels, and motels, inns, boarding or rooming houses, bed and breakfasts, and timesharing facilities.

Section 4. This Ordinance shall become effective upon ratification.

Ratified in City Council this ____ day of _____
in the Year of Our Lord 2016,
in the ____ Year of Independence of the United States
of America.

By:

John J. Tecklenburg
Mayor, City of Charleston

Attest:

Vanessa Turner Maybank
Clerk of Council